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Sequence Number: 07-06-23  
Rule ID(s): 9905-9906  
File Date: 7/10/2023  
Effective Date: 10/8/2023

# Rulemaking Hearing Rule(s) Filing Form

*Rulemaking Hearing Rules are rules filed after and as a result of a rulemaking hearing (Tenn. Code Ann. § 4-5-205).*

*Pursuant to Tenn. Code Ann. § 4-5-229, any new fee or fee increase promulgated by state agency rule shall take effect on July 1, following the expiration of the ninety (90) day period as provided in § 4-5-207. This section shall not apply to rules that implement new fees or fee increases that are promulgated as emergency rules pursuant to § 4-5-208(a) and to subsequent rules that make permanent such emergency rules, as amended during the rulemaking process. In addition, this section shall not apply to state agencies that did not, during the preceding two (2) fiscal years, collect fees in an amount sufficient to pay the cost of operating the board, commission or entity in accordance with § 4-29-121(b).*

<b>Agency/Board/Commission:</b>	Air Pollution Control Board
<b>Division:</b>	Air Pollution Control
<b>Contact Person:</b>	Travis Blake
<b>Address:</b>	William R. Snodgrass Tennessee Tower 312 Rosa L. Parks Avenue, 15th Floor Nashville, Tennessee
<b>Zip:</b>	37243
<b>Phone:</b>	(615) 532-0617
<b>Email:</b>	<a href="mailto:Travis.Blake@tn.gov">Travis.Blake@tn.gov</a>

**Revision Type (check all that apply):**

☒ Amendment ☐ Content based on previous emergency rule filed on \_\_\_\_\_  
☒ New ☐ Content is identical to the emergency rule  
☐ Repeal

**Rule(s)** (**ALL** chapters and rules contained in filing must be listed here. If needed, copy and paste additional tables to accommodate multiple chapters. Please make sure that **ALL** new rule and repealed rule numbers are listed in the chart below. Please enter only **ONE** Rule Number/Rule Title per row.)

Chapter Number	Chapter Title
0400-30-39	Standards of Performance for New Stationary Sources
Rule Number	Rule Title
0400-30-39-.03	Emission Guidelines and Compliance Times for Municipal Solid Waste Landfills

Chapter Number	Chapter Title
1200-03-07	Process Emission Standards
Rule Number	Rule Title
1200-03-07-.07	General Provisions and Applicability for Process Gaseous Emission Standards

Place substance of rules and other info here. Please be sure to include a detailed explanation of the changes being made to the listed rule(s). Statutory authority must be given for each rule change. For information on formatting rules go to <https://sos.tn.gov/products/division-publications/rulemaking-guidelines>.

Chapter 0400-30-39  
Standards of Performance for New Stationary Sources

New Rule

Chapter 0400-30-39 Standards of Performance for New Stationary Sources is amended by adding a new rule to read as follows:

0400-30-39-.03 Emission Guidelines and Compliance Times for Municipal Solid Waste Landfills

- (1) Each municipal solid waste landfill for which construction, reconstruction, or modification was commenced on or before July 17, 2014, that has accepted waste at any time since November 8, 1987, or has additional design capacity available for future waste deposition, shall satisfy the following standards and requirements:
  - (a) For the purpose of this paragraph, the definitions listed in 40 C.F.R. Part 62 Subpart OOO, § 60.16730 (2022) apply, except as follows:
    1. "Administrator" means the Technical Secretary of the Tennessee Air Pollution Control Board, except that with respect to 40 C.F.R. §§ 62.16710(b) (and the specific authorities enumerated therein), 62.16711(b), 62.16712(a)(5), 62.16718(a)(5), and 62.16724 "Administrator" means the Administrator of the United States Environmental Protection Agency or the Administrator's authorized representative.
    2. "State" means the State of Tennessee.
  - (b) All facilities subject to this paragraph shall comply with the provisions of 40 C.F.R. Part 62 Subpart OOO, §§ 62.16710 through 62.16730 (2022).
  - (c) The provisions of 40 C.F.R. Part 62 Subpart OOO (Federal Plan Requirements for Municipal Solid Waste Landfills That Commenced Construction On or Before July 17, 2014 and Have Not Been Modified or Reconstructed Since July 17, 2014), as published in the July 1, 2022, edition of the Code of Federal Regulations, are hereby adopted by reference. If the definitions in 40 C.F.R. Part 62 Subpart OOO, as incorporated, conflict with the definitions in subparagraph (a) of this paragraph, the definitions in subparagraph (a) of this paragraph shall apply.

Authority: T.C.A. §§ 4-5-201 et seq. and 68-201-101 et seq.

Chapter 1200-03-07  
Process Emission Standards

Amendments

Paragraph (7) of Rule 1200-03-07-.07 General Provisions and Applicability for Process Gaseous Emission Standards is amended by deleting it in its entirety and substituting instead the following:

- (7) Reserved. (See Rule 0400-30-39-.03.)

Authority: T.C.A. §§ 4-5-201 et seq. and 68-201-101 et seq.

Paragraph (9) of Rule 1200-03-07-.07 General Provisions and Applicability for Process Gaseous Emission Standards is amended by deleting it in its entirety and substituting instead the following:

- (9) Reserved. (See Rule 0400-30-39-.03.)

Authority: T.C.A. §§ 4-5-201 et seq. and 68-201-101 et seq.

\* If a roll-call vote was necessary, the vote by the Agency on these rulemaking hearing rules was as follows:

Board Member	Aye	No	Abstain	Absent	Signature (if required)
<b>Dr. Ronné Adkins</b> Commissioner's Designee, Dept. of Environment and Conservation	X				
<b>Dr. John Benitez</b> Licensed Physician with experience in health effects of air pollutants				X	
<b>Dr. Joshua Fu</b> Involved with Institution of Higher Learning on air pollution evaluation and control	X				
<b>Mike Haverstick</b> Working in management in Private Manufacturing	X				
<b>Dr. Shawn A. Hawkins</b> Working in field related to Agriculture or Conservation				X	
<b>Richard Holland</b> Working for Industry with technical experience	X				
<b>Caitlin Roberts Jennings</b> Small Generator of Air Pollution representing Automotive Interests	X				
<b>Dr. Chunrong Jia</b> Environmental Interests				X	
<b>Ken Moore</b> Working in Municipal Government				X	
<b>Stephen Moore</b> Working for Industry with technical experience	X				
<b>Amy Spann, PE</b> Registered Professional Engineer	X				
<b>Nicholas Ramos</b> Conservation Interest	X				
<b>Larry Waters</b> County Mayor				X	
<b>Jimmy West</b> Commissioner's Designee, Dept. of Economic and Community Development	X				

I certify that this is an accurate and complete copy of rulemaking hearing rules, lawfully promulgated and adopted by the Air Pollution Control Board on 05/10/2023, and is in compliance with the provisions of T.C.A. § 4-5-222.

I further certify the following:

Notice of Rulemaking Hearing filed with the Department of State on:

10/10/2022

Rulemaking Hearing(s) Conducted on: (add more dates).

12/06/2022

Date: May 17, 2023

Signature:

*Michelle W. Owenby*

Name of Officer: Michelle W. Owenby

Title of Officer: Technical Secretary

Agency/Board/Commission: Air Pollution Control Board

Rule Chapter Number(s): 0400-30-39 and 1200-03-07

All rulemaking hearing rules provided for herein have been examined by the Attorney General and Reporter of the State of Tennessee and are approved as to legality pursuant to the provisions of the Administrative Procedures Act, Tennessee Code Annotated, Title 4, Chapter 5.

*Jonathan Skrmetti*  
Jonathan Skrmetti  
Attorney General and Reporter

*June 30, 2023*

Date

**Department of State Use Only**

Filed with the Department of State on:

7/10/2023

Effective on:

10/8/2023

*Tre Hargett*

Tre Hargett  
Secretary of State

RECEIVED

Jul 10 2023, 10:58 am

Secretary of State  
Division of Publications

## Public Hearing Comments

One copy of a document that satisfies T.C.A. § 4-5-222 must accompany the filing.

The federal requirements for adopting a state 111(d) plan include EPA review and state response to EPA comments. The proposed state 111(d) plan was introduced at the same public hearing as this rulemaking. To comply with the federal requirements and T.C.A. § 4-5-222, EPA's comments towards the proposed state 111(d) plan and this rulemaking will be addressed in tandem. All comments were submitted by U.S. EPA.

1. Comment: The cover letter of Tennessee's pre-hearing submittal states that this submittal is a "prehearing draft copy of Tennessee's Clean Air Act §111(d) Plan submittal for compliance with 40 C.F.R. Part 60 Subpart Cf [and that] Tennessee proposes to comply with Subpart Cf by incorporating the equivalent federal plan (40 C.F.R. Part 62 Subpart OOO) by reference." However, one of the newly proposed rules – Regulation 0400-30-39-.03(1)(a)1 – states that "'Administrator' means the Technical Secretary of the Tennessee Air Pollution Control Board in those cases for which authority to implement and enforce provisions of the rule have been delegated to the State of Tennessee. Otherwise, 'Administrator' means the Administrator of the United States Environmental Protection Agency." (Emphasis added). Because this particular rule discusses delegation, it is unclear if Tennessee is intending to request delegation of the Federal Plan or is intending to submit its own Section 111(d) plan based upon the Federal Plan as stated in the prehearing submittal cover letter. For the remainder of EPA's comments, EPA will assume that Tennessee is intending to submit its own plan under Section 111(d).

Response: Tennessee is submitting a 111(d) plan and not a delegation request. The "delegation" language to which EPA refers is included in Rule 0400-30-39-.03(1)(a)1, and this language reflects EPA's own language in 40 C.F.R. § 62.16710(b) ("The following authorities will not be delegated to state, local, or tribal agencies"). Tennessee has revised the language of Rule 0400-30-39-.03(1)(a)1 (see response to comment #2) to remove the reference to delegation.

2. Comment: Tennessee's pre-hearing plan proposes to adopt a new rule that states, in part, the following:
  - "All facilities subject to this paragraph shall comply with the provisions of 40 C.F.R. Part 62 Subpart OOO, §§ 62.16710 through 62.16730."
  - "The provisions of 40 C.F.R. Part 62 Subpart OOO (Federal Plan Requirements for Municipal Solid Waste Landfills That Commenced Construction On or Before July 17, 2014, and Have Not Been Modified or Reconstructed Since July 17, 2014), as published in the July 1, 2022, edition of the Code of Federal Regulations, are hereby adopted by reference."

While EPA believes as a general matter that adopting by reference the substantive requirements applicable to sources within 40 C.F.R. Part 62 Subpart OOO (hereafter "Federal Plan") into Tennessee's regulations could form the basis of an approvable Subpart Cf plan, Tennessee's proposed blanket adoption of this rule presents two categories of concerns that should be addressed before submitting the plan to EPA.

First, there are certain provisions within the Federal Plan that explicitly cannot be delegated to states. See generally 40 C.F.R. § 62.16710(b). Adoption of provisions of the type discussed in 40 C.F.R. § 62.16710(b) could render the plan unapprovable by EPA. While EPA recognizes that Tennessee appears to not be seeking delegation of the Federal Plan and is instead proposing to submit a state plan based on the Federal Plan, many of the same limitations on the scope of delegation of the Federal Plan nonetheless still apply. For example, 40 C.F.R. § 62.16718(a)(5) – which allows EPA to approve alternative NMOC concentration monitoring approaches and is a provision that Tennessee is proposing to adopt by reference – cannot be delegated to states under 40 C.F.R. § 62.16710(b). Likewise, EPA does not believe that it could approve this type of provision in Tennessee's Section 111(d) state plan because it would provide substantial discretion to TDEC to approve "other methods to determine the NMOC concentration or a site-specific methane generation rate constant as an alternative..." One possible approach to address this comment would be for TDEC to adopt by reference 40 C.F.R. Part 62 Subpart OOO, except for any provisions of the types referenced in 40 C.F.R. § 62.16710(b).

Second, there are certain other provisions within 40 C.F.R. Part 62 Subpart OOO that may be problematic to adopt by reference in full. Examples of such provisions include:

- § 62.16710(b) (this provision lists authorities that cannot be delegated by EPA)
- § 62.16711(b) (this provision uses the phrase “EPA-approved”)
- § 62.16712(a)(5) (this provision uses the phrase “EPA-approved”)
- § 62.16718(a)(5) (this provision discusses approval of alternative methods to determine NMOC concentration)
- § 62.16724 (these provisions contain reporting guidelines that reference EPA and certain EPA reporting systems, such as the Central Data Exchange)

Response: Tennessee revised the definition of “Administrator” in Rule 0400-30-39-.03(1)(a)1 as follows to address EPA’s concerns:

“Administrator” means the Technical Secretary of the Tennessee Air Pollution Control Board, except that with respect to 40 C.F.R. §§ 62.16710(b) (and the specific authorities enumerated therein), 62.16711(b), 62.16712(a)(5), 62.16718(a)(5), and 62.16724, “Administrator” means the Administrator of the United States Environmental Protection Agency or the Administrator’s authorized representative.

Incorporations by reference frequently capture provisions for which authority is not delegated to the state or local agency, and there is no reason to exclude the specific provisions enumerated by EPA from the final rule.

3. Comment: EPA recommends that TDEC consider adding language to the narrative which informs reviewers/users that until a state plan is approved, EPA is required to administer the Federal Plan within Tennessee. Related to this topic, EPA additionally recommends including language in the narrative indicating whether and how the state intends to incorporate any EPA determinations undertaken during the course of implementing the Federal Plan. Alternatively, TDEC may choose to address this issue on a case-by-case basis for each individual facility.

Response: EPA’s requested language was added to the table of 111(d) plan requirements, which was separately the subject of a public hearing on December 6, 2022. Regarding EPA’s related issue (EPA determinations undertaken during the course of implementing the Federal Plan), any such requirements will be addressed on a case-by-case basis for each individual facility.

4. Comment: Page 12, Rule 0400-30-39-.03(1)(d) states “[f]or any facility subject to this paragraph, compliance with 40 C.F.R. Part 62 Subpart OOO, as adopted herein, ensures compliance with the requirements codified in 40 C.F.R. Part 60 Subparts Cc, Cf, and WWW.” At the same time, Tennessee proposes to repeal Rules 1200-03-07-.07(7) and 1200-03-07-07(9), which implement the landfill requirements established by 40 C.F.R. Part 60 Subpart WWW (Standards of Performance for Municipal Solid Waste Landfills) and 40 C.F.R. Part 60 Subpart Cc (Emission Guidelines and Compliance Times for Municipal Solid Waste Landfills). EPA recommends removing the proposed language in Rule 0400-30-39-.03(1)(d) because this language may have unintended consequences. For example, portions of 40 C.F.R. Part 62 Subpart OOO regarding certain legacy landfills allow for compliance with aspects of the Federal Plan through compliance with portions of 40 C.F.R. Part 60, Subpart WWW; Subpart GGG of 40 C.F.R. Part 62; or a state plan implementing 40 C.F.R. Part 60, Subpart Cc. Rule 0400-30-39-.03(1)(d) appears to propose the inverse here.

Response: The proposed language of Rule 0400-30-39-.03(1)(d) was removed from the final rule. EPA’s revision to 40 C.F.R. § 60.750(d)(1) states that municipal solid waste landfills must continue to comply with Subpart WWW until they become subject to the more stringent requirements in an approved and effective state or federal plan that implements 40 C.F.R. Part 60 Subpart Cf. This EPA revision accomplishes the intent and purpose of the deleted language.

5. Comment: Appendix F provides a list of affected Municipal Solid Waste Landfills, but the list appears to include certain modified landfills subject to NSPS XXX as applicable to the Federal Plan requirements. Please consider removing 40 C.F.R. Part 60 Subpart XXX landfills from the 111(d) State Plan.

Response: NSPS XXX landfills will be removed from the final plan.

## Regulatory Flexibility Addendum

Pursuant to T.C.A. §§ 4-5-401 through 4-5-404, prior to initiating the rule making process, all agencies shall conduct a review of whether a proposed rule or rule affects small business.

This rule is federally mandated and substantially codifies existing state or federal law, as follows.

- Section 111(d) of the Clean Air Act requires the Administrator of the U. S. EPA to prescribe regulations under which each state must submit plans establishing standards for any stationary source category subject to Section 111 of the federal act for any existing source. Section 111(d)(2) grants the Administrator the authority to prescribe a federal plan that applies if any state fails to submit a satisfactory plan.
- 40 C.F.R. Part 60 Subpart Cf establishes EPA's state plan requirements for municipal solid waste landfills, and 40 C.F.R. Part 62 Subpart OOO specifies equivalent federal plan requirements.
- The federal plan, which is implemented and enforced directly by EPA, applies if Tennessee fails to submit a state plan.
- This rule satisfies the requirements of 40 C.F.R. Part 60 Subpart Cf. Tennessee satisfied this requirement by adopting the language of 40 C.F.R. Part 62 Subpart OOO, because the federal plan language removes the requirement for existing landfills to resubmit certain reports (i.e., the federal plan language is slightly less burdensome than the state plan language).

Pursuant to T.C.A. § 4-5-404, a regulatory flexibility analysis is not required.

### **Impact on Local Governments**

Pursuant to T.C.A. §§ 4-5-220 and 4-5-228, "On any rule and regulation proposed to be promulgated, the proposing agency shall state in a simple declarative sentence, without additional comments on the merits or the policy of the rule or regulation, whether the rule or regulation may have a projected financial impact on local governments. The statement shall describe the financial impact in terms of increase in expenditures or decrease in revenues."

The Board anticipates that this rule will not result in an increase in expenditures or a decrease in revenues for local governments.



## Additional Information Required by Joint Government Operations Committee

All agencies, upon filing a rule, must also submit the following pursuant to T.C.A. § 4-5-226(i)(1).

- (A)** A brief summary of the rule and a description of all relevant changes in previous regulations effectuated by such rule;

This rulemaking amends Chapter 0400-30-39 to add new Rule 0400-30-39-.03 to include compliance requirements for municipal solid waste landfills, as codified in 40 C.F.R. Part 62 Subpart OOO. This rulemaking also amends paragraphs (7) and (9) of Rule 1200-03-07-.07 to remove corresponding, but outdated, landfill requirements.

- (B)** A citation to and brief description of any federal law or regulation or any state law or regulation mandating promulgation of such rule or establishing guidelines relevant thereto;

This rule is federally mandated and substantially codifies existing state or federal law, as follows.

- Section 111(d) of the Clean Air Act requires the Administrator of the U. S. EPA to prescribe regulations under which each state must submit plans establishing standards for any stationary source category subject to Section 111 of the federal act for any existing source. Section 111(d)(2) grants the Administrator the authority to prescribe a federal plan that applies if any state fails to submit a satisfactory plan.
- 40 C.F.R. Part 60 Subpart Cf establishes EPA's state plan requirements for municipal solid waste landfills, and 40 C.F.R. Part 62 Subpart OOO specifies equivalent federal plan requirements.
- The federal plan, which is implemented and enforced directly by EPA, applies if Tennessee fails to submit a state plan.

This rule satisfies the requirements of 40 C.F.R. Part 60 Subpart Cf. Tennessee satisfied this requirement by adopting the language of 40 C.F.R. Part 62 Subpart OOO, because the federal plan language removes the requirement for existing landfills to resubmit certain reports (i.e., the federal plan language is slightly less burdensome than the state plan language).

- (C)** Identification of persons, organizations, corporations or governmental entities most directly affected by this rule, and whether those persons, organizations, corporations or governmental entities urge adoption or rejection of this rule;

Persons, organizations, corporations, or governmental entities most directly affected by this rulemaking are the following facilities:

Dyersburg City Landfill (Dyer County); Jefferson County Landfill (Jefferson County); Jere Kirk Disposal (Dyer County); Lauderdale County Landfill (Lauderdale County); Pickett County Landfill (Pickett County); Sevier Solid Waste, Inc. (Sevier County); Carter Valley Landfill (Hawkins County); Middle Point Landfill (Rutherford County); North Shelby Landfill (Shelby County); South Shelby Landfill (Shelby County); Matlock Bend Landfill (Loudon County); Rhea County Landfill (Rhea County); Alcoa-Maryville-Blount County Landfill (Blount County); Volunteer Regional Landfill (Scott County); Chestnut Ridge Landfill (Anderson County); West Camden Sanitary Landfill (Benton County); Iris Glen Environmental Center (Washington County); Bradley County Landfill (Bradley County); Northwest Tennessee Landfill (Obion County); Waste Service of Decatur, LLC-Decatur County Landfill (Decatur County); City of Chattanooga Birchwood Landfill (Hamilton County); Jackson Madison County Landfill (Madison County); McMinn County Landfill (McMinn County); and Marion County Landfill (Marion County).

- (D)** Identification of any opinions of the attorney general and reporter or any judicial ruling that directly relates to the rule or the necessity to promulgate the rule;

The Board is not aware of any opinions of the Attorney General and Reporter or any judicial ruling that directly relates to the rule or the necessity to promulgate the rule.

- (E)** An estimate of the probable increase or decrease in state and local government revenues and expenditures, if any, resulting from the promulgation of this rule, and assumptions and reasoning upon which the estimate is based. An agency shall not state that the fiscal impact is minimal if the fiscal impact is more than two

percent (2%) of the agency's annual budget or five hundred thousand dollars (\$500,000), whichever is less;

The Board anticipates that this rule will not result in an increase in expenditures or a decrease in revenues for state or local governments.

- (F) Identification of the appropriate agency representative or representatives, possessing substantial knowledge and understanding of the rule;

Jimmy Johnston  
Division of Air Pollution Control  
William R. Snodgrass Tennessee Tower  
312 Rosa L. Parks Avenue, 15th Floor  
Nashville, Tennessee 37243  
[James.Johnston@tn.gov](mailto:James.Johnston@tn.gov)

- (G) Identification of the appropriate agency representative or representatives who will explain the rule at a scheduled meeting of the committees;

Blair Beaty  
Legislative Director  
Office of General Counsel

- (H) Office address, telephone number, and email address of the agency representative or representatives who will explain the rule at a scheduled meeting of the committees; and

Office of General Counsel  
Tennessee Department of Environment and Conservation  
William R. Snodgrass Tennessee Tower  
312 Rosa L. Parks Avenue, 2nd Floor  
Nashville, Tennessee 37243  
(615) 253-5339  
[Blair.Beaty@tn.gov](mailto:Blair.Beaty@tn.gov)

- (I) Any additional information relevant to the rule proposed for continuation that the committee requests.

- (1) A description of the action proposed, the purpose of the action, the legal authority for the action and the plan for implementing the action.
- This rulemaking establishes a state plan for compliance requirements for municipal solid waste landfills constructed, modified, or reconstructed on or before July 17, 2014. This rule was adopted in response to 40 C.F.R. Part 60, Subpart Cf, which requires states to establish such plans. This rule is adopted pursuant to T.C.A. §§ 4-5-201 to -231 and 68-201-101 to -121.
- (2) A determination that the action is the least-cost method for achieving the stated purpose.
- This action is the least-costly method for achieving the intent and purpose of the regulation because it complies with the requirements established by 40 C.F.R. Part 60 Subpart Cf without imposing additional costs. Furthermore, by adopting the provisions of 40 C.F.R. Part 62 Subpart OOO, this rule removes certain redundancies in notification and reporting that would otherwise apply.
- (3) A comparison of the cost-benefit relation of the action to nonaction.
- The Board has determined that there is no cost-benefit relation of this rulemaking action compared to nonaction, because if no action is taken on this rule, affected landfills will still be required to comply with 40 C.F.R. Part 62 Subpart OOO. The difference in action and nonaction at the state level is that the rule would be implemented and enforced directly by U. S. EPA if this rule is not adopted at the state level.
- (4) A determination that the action represents the most efficient allocation of public and private resources.
- The Board has determined that this rule represents the most efficient allocation of public and private resources because implementation and enforcement at the state level is likely to be more efficient than

implementation by U. S. EPA. Similarly, the Board believes that regulated entities will allocate their own resources more efficiently by dealing with the Division of Air Pollution Control rather than with U. S. EPA.

- (5) A determination of the effect of the action on competition.

The Board has determined that this rule will have no effect on competition, because all landfills will be subject to the same requirements. As noted above, these requirements would be implemented and enforced directly by U. S. EPA if this rule is not adopted at the state level.

- (6) A determination of the effect of the action on the cost of living in the geographical area in which the action would occur.

The Board has determined that this rule will not affect the cost of living in the geographical area in which the action would occur.

- (7) A determination of the effect of the action on employment in the geographical area in which the action would occur.

The Board has determined that this rule will not affect employment in the geographical area in which the action would occur.

- (8) The source of revenue to be used for the action.

The action would be funded primarily through Title V fees.

- (9) A conclusion as to the economic impact upon all persons substantially affected by the action, including an analysis containing a description as to which persons will bear the costs of the action and which persons will benefit directly and indirectly from the action.

The Board has determined that this rule will not have a substantial economic impact upon the persons substantially affected by this action. The costs associated with this rule will be borne by municipal solid waste landfills constructed, modified, or reconstructed on or before July 17, 2014. EPA (see 81 FR 59313, Aug. 29, 2016) estimates that surrounding communities will significantly benefit from reduction in emissions of nonmethane organic carbon and methane emissions from landfills.

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<b>Contact Person:</b>	Travis Blake
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Chapter 0400-30-39  
Standards of Performance for New Stationary Sources

New Rule

Chapter 0400-30-39 Standards of Performance for New Stationary Sources is amended by adding a new rule to read as follows:

0400-30-39-.03 Emission Guidelines and Compliance Times for Municipal Solid Waste Landfills

- (1) Each municipal solid waste landfill for which construction, reconstruction, or modification was commenced on or before July 17, 2014, that has accepted waste at any time since November 8, 1987, or has additional design capacity available for future waste deposition, shall satisfy the following standards and requirements:
  - (a) For the purpose of this paragraph, the definitions listed in 40 C.F.R. Part 62 Subpart OOO, § 60.16730 (2022) apply, except as follows:
    1. "Administrator" means the Technical Secretary of the Tennessee Air Pollution Control Board, except that with respect to 40 C.F.R. §§ 62.16710(b) (and the specific authorities enumerated therein), 62.16711(b), 62.16712(a)(5), 62.16718(a)(5), and 62.16724 "Administrator" means the Administrator of the United States Environmental Protection Agency or the Administrator's authorized representative.
    2. "State" means the State of Tennessee.
  - (b) All facilities subject to this paragraph shall comply with the provisions of 40 C.F.R. Part 62 Subpart OOO, §§ 62.16710 through 62.16730 (2022).
  - (c) The provisions of 40 C.F.R. Part 62 Subpart OOO (Federal Plan Requirements for Municipal Solid Waste Landfills That Commenced Construction On or Before July 17, 2014, and Have Not Been Modified or Reconstructed Since July 17, 2014), as published in the July 1, 2022, edition of the Code of Federal Regulations, are hereby adopted by reference. If the definitions in 40 C.F.R. Part 62 Subpart OOO, as incorporated, conflict with the definitions in subparagraph (a) of this paragraph, the definitions in subparagraph (a) of this paragraph shall apply.

Authority: T.C.A. §§ 4-5-201 et seq. and 68-201-101 et seq.

Chapter 1200-03-07  
Process Emission Standards

Amendments

Paragraph (7) of Rule 1200-03-07-.07 General Provisions and Applicability for Process Gaseous Emission Standards is amended by deleting it in its entirety and substituting instead the following:

- (7) ~~Reserved. (See Rule 0400-30-39-.03.) Each municipal solid waste landfill for which construction, reconstruction or modification was commenced before July 17, 2014 that has accepted waste at any time since November 8, 1987 and each municipal solid waste landfill for which construction, reconstruction or modification was commenced before May 30, 1991 that has additional design capacity available for future waste deposition, shall satisfy the standards and requirements as follow:~~
  - ~~(a) For what follows, "Administrator" means the Technical Secretary of the Tennessee Air Pollution Control Board in those cases for which Authority to implement and enforce provisions of the rule have been delegated to Tennessee. Otherwise, "Administrator" means the Administrator of the United States Environmental Protection Agency. "State" means the State of Tennessee."~~

- (b) ~~For the purpose of this paragraph, the definitions listed in 40 CFR Part 60 Subpart WWW, § 60.751 apply.~~
- (c) ~~All facilities subject to this paragraph shall comply with the provisions of 40 CFR Part 60 Subpart WWW, §§ 60.752 through 60.759, except as listed in Parts 1 and 2 of this subparagraph.~~
- ~~1. The initial design capacity report required by § 60.757(a) shall be submitted no later than March 28, 1999. This submittal date shall replace the submittal dates listed in § 60.757(a)(1)(i) through (ii).~~
  - ~~2. The initial NMOC emission rate report required by § 60.757(b) shall be submitted with the initial design capacity report required under Part 1 of this subparagraph. The date for the submittal of the initial NMOC emission rate report as listed in § 60.757(b)(1)(i) shall be replaced by the requirement to submit this report no later than March 28, 1999.~~
- (d) ~~Adopted herein by reference are the Federal regulations in Paragraph (9) of this rule as appearing in Subpart WWW of 40 CFR Part 60. Source: (published in the Federal Register / Vol. 61, No. 49 / Tuesday, March 12, 1996 / Rules and Regulations 9919), unless otherwise noted and as amended at 63 FR 32750–32753, June 16, 1998; 64 FR 9262, February 24, 1999; 65 FR 18908 and 18909, April 10, 2000; 65 FR 61778, October 17, 2000; 71 FR 55127, September 21, 2006.~~

Authority: T.C.A. §§ 4-5-201 et seq. and 68-201-101 et seq.

Paragraph (9) of Rule 1200-03-07-.07 General Provisions and Applicability for Process Gaseous Emission Standards is amended by deleting it in its entirety and substituting instead the following:

- (9) Reserved. (See Rule 0400-30-39-.03.) ~~Subpart WWW—Standards of Performance for Municipal Solid Waste Landfills~~

~~Sec.~~

~~60.750 Applicability, designation of affected facility, and delegation of authority.~~

~~60.751 Definitions.~~

~~60.752 Standards for air emissions from municipal solid waste landfills.~~

~~60.753 Operational standards for collection and control systems.~~

~~60.754 Test methods and procedures.~~

~~60.755 Compliance provisions.~~

~~60.756 Monitoring of operations.~~

~~60.757 Reporting requirements.~~

~~60.758 Recordkeeping requirements.~~

~~60.759 Specifications for active collection systems.~~

~~Authority: 42 U.S.C. 7401, 7411, 7414, 7416 and 7601.~~

~~Subpart WWW—Standards of Performance for Municipal Solid Waste Landfills~~

~~§ 60.750 Applicability, designation of affected facility, and delegation of authority.~~

- (a) ~~The provisions of this subpart apply to each municipal solid waste landfill that commenced construction, reconstruction or modification or began accepting waste on or after May 30, 1991. Physical or operational changes made to an existing MSW landfill solely to comply with Subpart Cc of this part are not considered construction, reconstruction, or modification for the purposes of this section.~~

- (b) ~~The following authorities shall be retained by the Administrator and not transferred to the State: §60.754(a)(5).~~

- (c) ~~Activities required by or conducted pursuant to a CERCLA, RCRA, or State remedial action are not considered construction, reconstruction, or modification for purposes of this subpart.~~

~~§ 60.751 Definitions.~~

~~As used in this subpart, all terms not defined herein shall have the meaning given them in the Act or in subpart A~~

of this part.

~~“Active collection system” means a gas collection system that uses gas mover equipment.~~

~~“Active landfill” means a landfill in which solid waste is being placed or a landfill that is planned to accept waste in the future.~~

~~“Closed landfill” means a landfill in which solid waste is no longer being placed, and in which no additional solid wastes will be placed without first filing a notification of modification as prescribed under § 60.7(a)(4). Once a notification of modification has been filed, and additional solid waste is placed in the landfill, the landfill is no longer closed.~~

~~“Closure” means that point in time when a landfill becomes a closed landfill.~~

~~“Commercial solid waste” means all types of solid waste generated by stores, offices, restaurants, warehouses, and other nonmanufacturing activities, excluding residential and industrial wastes.~~

~~“Controlled landfill” means any landfill at which collection and control systems are required under this subpart as a result of the nonmethane organic compounds emission rate. The landfill is considered controlled at the time a collection and control system design plan is submitted in compliance with § 60.752(b)(2)(i).~~

~~“Design capacity” means the maximum amount of solid waste a landfill can accept, as indicated in terms of volume or mass in the most recent permit issued by the State, local, or Tribal agency responsible for regulating the landfill, plus any in-place waste not accounted for in the most recent permit. If the owner or operator chooses to convert the design capacity from volume to mass or from mass to volume to demonstrate its design capacity is less than 2.5 million megagrams or 2.5 million cubic meters, the calculation must include a site specific density, which must be recalculated annually.~~

~~“Disposal facility” means all contiguous land and structures, other appurtenances, and improvements on the land used for the disposal of solid waste.~~

~~“Emission rate cutoff” means the threshold annual emission rate to which a landfill compares its estimated emission rate to determine if control under the regulation is required.~~

~~“Enclosed combustor” means an enclosed firebox which maintains a relatively constant limited peak temperature generally using a limited supply of combustion air. An enclosed flare is considered an enclosed combustor.~~

~~“Flare” means an open combustor without enclosure or shroud.~~

~~“Gas mover equipment” means the equipment (i.e., fan, blower, compressor) used to transport landfill gas through the header system.~~

~~“Household waste” means any solid waste (including garbage, trash, and sanitary waste in septic tanks) derived from households (including, but not limited to, single and multiple residences, hotels and motels, bunkhouses, ranger stations, crew quarters, campgrounds, picnic grounds, and day-use recreation areas).~~

~~“Industrial solid waste” means solid waste generated by manufacturing or industrial processes that is not a hazardous waste regulated under Subtitle C of the Resource Conservation and Recovery Act, parts 264 and 265 of this title. Such waste may include, but is not limited to, waste resulting from the following manufacturing processes: electric power generation; fertilizer/agricultural chemicals; food and related products/by-products; inorganic chemicals; iron and steel manufacturing; leather and leather products; nonferrous metals manufacturing/foundries; organic chemicals; plastics and resins manufacturing; pulp and paper industry; rubber and miscellaneous plastic products; stone, glass, clay, and concrete products; textile manufacturing; transportation equipment; and water treatment. This term does not include mining waste or oil and gas waste.~~

~~“Interior Well” means any well or similar collection component located inside the perimeter of the landfill. A perimeter well located outside the landfilled waste is not an interior well.~~

~~“Landfill” means an area of land or an excavation in which wastes are placed for permanent disposal, and that is not a land application unit, surface impoundment, injection well, or waste pile as those terms are defined under § 257.2 of this title.~~



~~“Lateral expansion” means a horizontal expansion of the waste boundaries of an existing MSW landfill. A lateral expansion is not a modification unless it results in an increase in the design capacity of the landfill.~~

~~“Modification” means an increase in the permitted volume design capacity of the landfill by either horizontal or vertical expansion based on its permitted design capacity as of May 30, 1991. Modification does not occur until the owner or operator commences construction on the horizontal or vertical expansion.~~

~~“Municipal solid waste landfill” or “MSW landfill” means an entire disposal facility in a contiguous geographical space where household waste is placed in or on land. An MSW landfill may also receive other types of RCRA Subtitle D wastes (§ 257.2 of this title) such as commercial solid waste, nonhazardous sludge, conditionally exempt small quantity generator waste, and industrial solid waste. Portions of an MSW landfill may be separated by access roads. An MSW landfill may be publicly or privately owned. An MSW landfill may be a new MSW landfill, an existing MSW landfill, or a lateral expansion.~~

~~“Municipal solid waste landfill emissions” or “MSW landfill emissions” means gas generated by the decomposition of organic waste deposited in an MSW landfill or derived from the evolution of organic compounds in the waste.~~

~~“NMOC” means nonmethane organic compounds, as measured according to the provisions of § 60.754.~~

~~“Nondegradable waste” means any waste that does not decompose through chemical breakdown or microbiological activity. Examples are, but are not limited to, concrete, municipal waste combustor ash, and metals.~~

~~“Passive collection system” means a gas collection system that solely uses positive pressure within the landfill to move the gas rather than using gas mover equipment.~~

~~“Sludge” means any solid, semisolid, or liquid waste generated from a municipal, commercial, or industrial wastewater treatment plant, water supply treatment plant, or air pollution control facility, exclusive of the treated effluent from a wastewater treatment plant.~~

~~“Solid waste” means any garbage, sludge from a wastewater treatment plant, water supply treatment plant, or air pollution control facility and other discarded material, including solid, liquid, semisolid, or contained gaseous material resulting from industrial, commercial, mining, and agricultural operations, and from community activities, but does not include solid or dissolved material in domestic sewage, or solid or dissolved materials in irrigation return flows or industrial discharges that are point sources subject to permits under 33 U.S.C. 1342, or source, special nuclear, or by-product material as defined by the Atomic Energy Act of 1954, as amended (42 U.S.C. 2011 et seq.).~~

~~“Sufficient density” means any number, spacing, and combination of collection system components, including vertical wells, horizontal collectors, and surface collectors, necessary to maintain emission and migration control as determined by measures of performance set forth in this part.~~

~~“Sufficient extraction rate” means a rate sufficient to maintain a negative pressure at all wellheads in the collection system without causing air infiltration, including any wellheads connected to the system as a result of expansion or excess surface emissions, for the life of the blower.~~

#### ~~§ 60.752 Standards for air emissions from municipal solid waste landfills.~~

~~(a) Each owner or operator of an MSW landfill having a design capacity less than 2.5 million megagrams by mass or 2.5 million cubic meters by volume shall submit an initial design capacity report to the Administrator as provided in § 60.757(a). The landfill may calculate design capacity in either megagrams or cubic meters for comparison with the exemption values. Any density conversions shall be documented and submitted with the report. Submittal of the initial design capacity report shall fulfill the requirements of this subpart except as provided for in paragraphs (a)(1) and (a)(2) of this section.~~

~~1. The owner or operator shall submit to the Administrator an amended design capacity report, as provided for in § 60.757(a)(3).~~

~~2. When an increase in the maximum design capacity of a landfill exempted from the provisions of § 60.752(b) through § 60.759 of this subpart on the basis of the design capacity exemption in paragraph (a) of this section results in a revised maximum design capacity equal to or greater than~~



2.5 million megagrams and 2.5 million cubic meters, the owner or operator shall comply with the provision of paragraph (b) of this section.

~~(b) Each owner or operator of an MSW landfill having a design capacity equal to or greater than 2.5 million megagrams and 2.5 million cubic meters, shall either comply with paragraph (b)(2) of this section or calculate an NMOC emission rate for the landfill using the procedures specified in § 60.754. The NMOC emission rate shall be recalculated annually, except as provided in § 60.757(b)(1)(ii) of this subpart. The owner or operator of an MSW landfill subject to this subpart with a design capacity greater than or equal to 2.5 million megagrams and 2.5 million cubic meters is subject to part 70 or 71 permitting requirements.~~

~~1. If the calculated NMOC emission rate is less than 50 megagrams per year, the owner or operator shall:~~

~~(i) Submit an annual emission report to the Administrator, except as provided for in § 60.757(b)(1)(ii); and~~

~~(ii) Recalculate the NMOC emission rate annually using the procedures specified in § 60.754(a)(1) until such time as the calculated NMOC emission rate is equal to or greater than 50 megagrams per year, or the landfill is closed.~~

~~(A) If the NMOC emission rate, upon recalculation required in paragraph (b)(1)(ii) of this section, is equal to or greater than 50 megagrams per year, the owner or operator shall install a collection and control system in compliance with paragraph (b)(2) of this section.~~

~~(B) If the landfill is permanently closed, a closure notification shall be submitted to the Administrator as provided for in § 60.757(d).~~

~~2. If the calculated NMOC emission rate is equal to or greater than 50 megagrams per year, the owner or operator shall:~~

~~(i) Submit a collection and control system design plan prepared by a professional engineer to the Administrator within 1 year:~~

~~(A) The collection and control system as described in the plan shall meet the design requirements of paragraph (b)(2)(ii) of this section.~~

~~(B) The collection and control system design plan shall include any alternatives to the operational standards, test methods, procedures, compliance measures, monitoring, recordkeeping or reporting provisions of §§ 60.753 through 60.758 proposed by the owner or operator.~~

~~(C) The collection and control system design plan shall either conform with specifications for active collection systems in § 60.759 or include a demonstration to the Administrator's satisfaction of the sufficiency of the alternative provisions to § 60.759.~~

~~(D) The Administrator shall review the information submitted under paragraphs (b)(2)(i)(A), (B) and (C) of this section and either approve it, disapprove it, or request that additional information be submitted. Because of the many site-specific factors involved with landfill gas system design, alternative systems may be necessary. A wide variety of system designs are possible, such as vertical wells, combination horizontal and vertical collection systems, or horizontal trenches only, leachate collection components, and passive systems.~~

~~(ii) Install a collection and control system that captures the gas generated within the landfill as required by paragraphs (b)(2)(ii)(A) or (B) and (b)(2)(iii) of this section within 30 months after the first annual report in which the emission rate equals or exceeds 50 megagrams per year, unless Tier 2 or Tier 3 sampling demonstrates that the emission rate is less than 50 megagrams per year, as specified in &60.757(c)(1) or (2).~~

~~(A) — An active collection system shall:~~

- ~~(1) — Be designed to handle the maximum expected gas flow rate from the entire area of the landfill that warrants control over the intended use period of the gas control or treatment system equipment;~~
- ~~(2) — Collect gas from each area, cell, or group of cells in the landfill in which the initial solid waste has been placed for a period of:
  - ~~(i) — 5 years or more if active; or~~
  - ~~(ii) — 2 years or more if closed or at final grade;~~~~
- ~~(3) — Collect gas at a sufficient extraction rate;~~
- ~~(4) — Be designed to minimize off-site migration of subsurface gas.~~

~~(B) — A passive collection system shall:~~

- ~~(1) — Comply with the provisions specified in paragraphs (b)(2)(ii)(A)(1), (2), and (2)(ii)(A)(4) of this section.~~
- ~~(2) — Be installed with liners on the bottom and all sides in all areas in which gas is to be collected. The liners shall be installed as required under § 258.40 of this title.~~

~~(iii) — Route all the collected gas to a control system that complies with the requirements in either paragraph (b)(2)(iii)(A), (B) or (C) of this section.~~

~~(A) — An open flare designed and operated in accordance with § 60.18 except as noted in § 60.754(e);~~

~~(B) — A control system designed and operated to reduce NMOC by 98 weight percent, or, when an enclosed combustion device is used for control, to either reduce NMOC by 98 weight percent or reduce the outlet NMOC concentration to less than 20 parts per million by volume, dry basis as hexane at 3 percent oxygen. The reduction efficiency or parts per million by volume shall be established by an initial performance test to be completed no later than 180 days after the initial startup of the approved control system using the test methods specified in § 60.754(d).~~

~~(1) — If a boiler or process heater is used as the control device, the landfill gas stream shall be introduced into the flame zone.~~

~~(2) — The control device shall be operated within the parameter ranges established during the initial or most recent performance test. The operating parameters to be monitored are specified in § 60.756;~~

~~(C) — Route the collected gas to a treatment system that processes the collected gas for subsequent sale or use. All emissions from any atmospheric vent from the gas treatment system shall be subject to the requirements of paragraph (b)(2)(iii)(A) or (B) of this section.~~

~~(iv) — Operate the collection and control device installed to comply with this subpart in accordance with the provisions of § 60.753, 60.755 and 60.756.~~

~~(v) — The collection and control system may be capped or removed provided that all the conditions of paragraphs (b)(2)(v)(A), (B), and (C) of this section are met:~~

~~(A) — The landfill shall be a closed landfill as defined in § 60.751 of this subpart. A closure report shall be submitted to the Administrator as provided in § 60.757(d);~~

- ~~(B) The collection and control system shall have been in operation a minimum of 15 years; and~~
- ~~(C) Following the procedures specified in § 60.754(b) of this subpart, the calculated NMOC gas produced by the landfill shall be less than 50 megagrams per year on three successive test dates. The test dates shall be no less than 90 days apart, and no more than 180 days apart.~~
- ~~(c) For purposes of obtaining an operating permit under title V of the Act, the owner or operator of a MSW landfill subject to this subpart with a design capacity less than 2.5 million megagrams or 2.5 million cubic meters is not subject to the requirement to obtain an operating permit for the landfill under part 70 or 71 of this chapter, unless the landfill is otherwise subject to either part 70 or 71. For purposes of submitting a timely application for an operating permit under part 70 or 71, the owner or operator of a MSW landfill subject to this subpart with a design capacity greater than or equal to 2.5 million megagrams and 2.5 million cubic meters, and not otherwise subject to either part 70 or 71, becomes subject to the requirements of §§70.5(a)(1)(i) or 71.5(a)(1)(i) of this chapter, regardless of when the design capacity report is actually submitted, no later than:~~
- ~~1. June 10, 1996 for MSW landfills that commenced construction, modification, or reconstruction on or after May 30, 1991 but before March 12, 1996;~~
  - ~~2. Ninety days after the date of commenced construction, modification, or reconstruction for MSW landfills that commence construction, modification, or reconstruction on or after March 12, 1996.~~
- ~~(d) When a MSW landfill subject to this subpart is closed, the owner or operator is no longer subject to the requirement to maintain an operating permit under part 70 or 71 of this chapter for the landfill if the landfill is not otherwise subject to the requirements of either part 70 or 71 and if either of the following conditions are met:~~
- ~~1. The landfill was never subject to the requirement for a control system under paragraph (b)(2) of this section; or~~
  - ~~2. The owner or operator meets the conditions for control system removal specified in paragraph (b)(2)(v) of this section.~~
- ~~§ 60.753 Operational standards for collection and control systems.~~
- ~~Each owner or operator of an MSW landfill gas collection and control system used to comply with the provisions of § 60.752(b)(2)(ii) of this subpart shall:~~
- ~~(a) Operate the collection system such that gas is collected from each area, cell, or group of cells in the MSW landfill in which solid waste has been in place for:~~
- ~~1. 5 years or more if active; or~~
  - ~~2. 2 years or more if closed or at final grade;~~
- ~~(b) Operate the collection system with negative pressure at each wellhead except under the following conditions:~~
- ~~1. A fire or increased well temperature. The owner or operator shall record instances when positive pressure occurs in efforts to avoid a fire. These records shall be submitted with the annual reports as provided in § 60.757(f)(1);~~
  - ~~2. Use of a geomembrane or synthetic cover. The owner or operator shall develop acceptable pressure limits in the design plan;~~
  - ~~3. A decommissioned well. A well may experience a static positive pressure after shut down to accommodate for declining flows. All design changes shall be approved by the Administrator;~~
- ~~(c) Operate each interior wellhead in the collection system with a landfill gas temperature less than 55°C and~~

~~with either a nitrogen level less than 20 percent or an oxygen level less than 5 percent. The owner or operator may establish a higher operating temperature, nitrogen, or oxygen value at a particular well. A higher operating value demonstration shall show supporting data that the elevated parameter does not cause fires or significantly inhibit anaerobic decomposition by killing methanogens.~~

- ~~1. The nitrogen level shall be determined using Method 3C, unless an alternative test method is established as allowed by § 60.752(b)(2)(i) of this subpart.~~
- ~~2. Unless an alternative test method is established as allowed by § 60.752(b)(2)(i) of this subpart, the oxygen shall be determined by an oxygen meter using Method 3A or 3C except that:~~
  - ~~(i) The span shall be set so that the regulatory limit is between 20 and 50 percent of the span;~~
  - ~~(ii) A data recorder is not required;~~
  - ~~(iii) Only two calibration gases are required, a zero and span, and ambient air may be used as the span;~~
  - ~~(iv) A calibration error check is not required;~~
  - ~~(v) The allowable sample bias, zero drift, and calibration drift are  $\pm 10$  percent.~~
- ~~(d) Operate the collection system so that the methane concentration is less than 500 parts per million above background at the surface of the landfill. To determine if this level is exceeded, the owner or operator shall conduct surface testing around the perimeter of the collection area along a pattern that traverses the landfill at 30 meter intervals and where visual observations indicate elevated concentrations of landfill gas, such as distressed vegetation and cracks or seeps in the cover. The owner or operator may establish an alternative traversing pattern that ensures equivalent coverage. A surface monitoring design plan shall be developed that includes a topographical map with the monitoring route and the rationale for any site-specific deviations from the 30 meter intervals. Areas with steep slopes or other dangerous areas may be excluded from the surface testing.~~
- ~~(e) Operate the system such that all collected gases are vented to a control system designed and operated in compliance with § 60.752(b)(2)(iii). In the event the collection or control system is inoperable, the gas mover system shall be shut down and all valves in the collection and control system contributing to venting of the gas to the atmosphere shall be closed within 1 hour; and~~
- ~~(f) Operate the control or treatment system at all times when the collected gas is routed to the system.~~
- ~~(g) If monitoring demonstrates that the operational requirements in paragraphs (b), (c), or (d) of this section are not met, corrective action shall be taken as specified in § 60.755(a)(3) through (5) or § 60.755(c) of this subpart. If corrective actions are taken as specified in § 60.755, the monitored exceedance is not a violation of the operational requirements in this section.~~

#### ~~§ 60.754 Test methods and procedures.~~

- ~~(a) 1. The landfill owner or operator shall calculate the NMOC emission rate using either the equation provided in paragraph (a)(1)(i) of this section or the equation provided in paragraph (a)(1)(ii) of this section. Both equations may be used if the actual year to year solid waste acceptance rate is known, as specified in paragraph (a)(1)(i), for part of the life of the landfill and the actual year-to-year solid waste acceptance rate is unknown, as specified in paragraph (a)(1)(ii), for part of the life of the landfill. The values to be used in both equations are 0.05 per year for k, 170 cubic meters per megagram for  $L_0$ , and 4,000 parts per million by volume as hexane for the  $C_{NMOC}$ .~~
  - ~~(i) The following equation shall be used if the actual year-to-year solid waste acceptance rate is known.~~

$$\cancel{M_{NMOC}} = \sum_{i=1}^n \cancel{2kL_0M_i} \left( \cancel{e^{-kt_i}} \right) \left( \cancel{C_{NMOC}} \right) \left( \cancel{3.6 \times 10^{-9}} \right)$$

where,

$M_{NMOC}$  = Total NMOC emission rate from the landfill, megagrams per year  
 $k$  = methane generation rate constant, year<sup>-1</sup>  
 $L_0$  = methane generation potential, cubic meters per megagram solid waste  
 $M_i$  = mass of solid waste in the  $i^{th}$  section, megagrams  
 $t_i$  = age of the  $i^{th}$  section, years  
 $C_{NMOC}$  = concentration of NMOC, parts per million by volume as hexane  
 $3.6 \times 10^{-9}$  = conversion factor

The mass of nondegradable solid waste may be subtracted from the total mass of solid waste in a particular section of the landfill when calculating the value for  $M_i$  if documentation of the nature and amount of such wastes is maintained.

- (ii) The following equation shall be used if the actual year to year solid waste acceptance rate is unknown.

$$M_{NMOC} = 2L_0 R (e^{-ke} - e^{-kt}) (C_{NMOC})(3.6 \times 10^{-9})$$

where,

$M_{NMOC}$  = mass emission rate of NMOC, megagrams per year  
 $L_0$  = methane generation potential, cubic meters per megagram solid waste  
 $R$  = average annual acceptance rate, megagrams per year  
 $k$  = methane generation rate constant, year<sup>-1</sup>  
 $t$  = age of landfill, years  
 $C_{NMOC}$  = concentration of NMOC, parts per million by volume as hexane  
 $e$  = time since closure, years. For active landfill  $e = 0$  and  $e^{-ke} = 1$   
 $3.6 \times 10^{-9}$  = conversion factor

The mass of nondegradable solid waste may be subtracted from the total mass of solid waste in a particular section of the landfill when calculating a value for  $R$ , if documentation of the nature and amount of such wastes is maintained.

2. Tier 1. The owner or operator shall compare the calculated NMOC mass emission rate to the standard of 50 megagrams per year.
- (i) If the NMOC emission rate calculated in paragraph (a)(1) of this section is less than 50 megagrams per year, then the landfill owner shall submit an emission rate report as provided in § 60.757(b)(1), and shall recalculate the NMOC mass emission rate annually as required under § 60.752(b)(1).
- (ii) If the calculated NMOC emission rate is equal to or greater than 50 megagrams per year, then the landfill owner shall either comply with § 60.752(b)(2), or determine a site-specific NMOC concentration and recalculate the NMOC emission rate using the procedures provided in paragraph (a)(3) of this section.
3. Tier 2. The landfill owner or operator shall determine the NMOC concentration using the following sampling procedure. The landfill owner or operator shall install at least two sample probes per hectare of landfill surface that has retained waste for at least 2 years. If the landfill is larger than 25 hectares in area, only 50 samples are required. The sample probes should be located to avoid known areas of nondegradable solid waste. The owner or operator shall collect and analyze one sample of landfill gas from each probe to determine the NMOC concentration using Method 25 or 25C of appendix A of this part. Method 18 of appendix A of this part may be used to analyze the samples collected by the Method 25 or 25C sampling procedure. Taking composite samples from different probes into a single cylinder is allowed; however, equal sample volumes must be taken from each probe. For each composite, the sampling rate, collection times, beginning and ending

~~cylinder vacuums, or alternate volume measurements must be recorded to verify that composite volumes are equal. Composite sample volumes should not be less than one liter unless evidence can be provided to substantiate the accuracy of smaller volumes. Terminate compositing before the cylinder approaches ambient pressure where measurement accuracy diminishes. If using Method 18 of appendix A of this part, the owner or operator must identify all compounds in the sample and, as a minimum, test for those compounds published in the most recent Compilation of Air Pollutant Emission Factors (AP-42), minus carbon monoxide, hydrogen sulfide, and mercury. As a minimum, the instrument must be calibrated for each of the compounds on the list. Convert the concentration of each Method 18 compound to CNMOC as hexane by multiplying by the ratio of its carbon atoms divided by six. If more than the required number of samples are taken, all samples shall be used in the analysis. The landfill owner or operator shall divide the NMOC concentration from Method 25 or 25C of Appendix A of this part by six to convert from CNMOC as carbon to CNMOC as hexane. If the landfill has an active or passive gas removal system in place, Method 25 or 25C samples may be collected from these systems instead of surface probes provided the removal system can be shown to provide sampling as representative at the two sampling probe per hectare requirement. For active collection systems, samples may be collected from the common header pipe before the gas moving or condensate removal equipment. For these systems, a minimum of three samples must be collected from the header pipe.~~

~~(i) The landfill owner or operator shall recalculate the NMOC mass emission rate using the equations provided in paragraph (a)(1)(i) or (a)(1)(ii) of this section and using the average NMOC concentration from the collected samples instead of the default value in the equation provided in paragraph (a)(1) of this section.~~

~~(ii) If the resulting mass emission rate calculated using the site-specific NMOC concentration is equal to or greater than 50 megagrams per year, then the landfill owner or operator shall either comply with § 60.752(b)(2), or determine the site-specific methane generation rate constant and recalculate the NMOC emission rate using the site-specific methane generation rate using the procedure specified in paragraph (a)(4) of this section.~~

~~(iii) If the resulting NMOC mass emission rate is less than 50 megagrams per year, the owner or operator shall submit a periodic estimate of the emission rate report as provided in § 60.757(b)(1) and retest the site-specific NMOC concentration every 5 years using the methods specified in this section.~~

~~4. Tier 3. The site-specific methane generation rate constant shall be determined using the procedures provided in Method 2E of appendix A of this part. The landfill owner or operator shall estimate the NMOC mass emission rate using equations in paragraph (a)(1)(i) or (a)(1)(ii) of this section and using a site-specific methane generation rate constant  $k$ , and the site-specific NMOC concentration as determined in paragraph (a)(3) of this section instead of the default values provided in paragraph (a)(1) of this section. The landfill owner or operator shall compare the resulting NMOC mass emission rate to the standard of 50 megagrams per year.~~

~~(i) If the NMOC mass emission rate as calculated using the site-specific methane generation rate and concentration of NMOC is equal to or greater than 50 megagrams per year, the owner or operator shall comply with § 60.752(b)(2).~~

~~(ii) If the NMOC mass emission rate is less than 50 megagrams per year, then the owner or operator shall submit a periodic emission rate report as provided in § 60.757(b)(1) and shall recalculate the NMOC mass emission rate annually, as provided in § 60.757(b)(1) using the equations in paragraph (a)(1) of this section and using the site-specific methane generation rate constant and NMOC concentration obtained in paragraph (a)(3) of this section. The calculation of the methane generation rate constant is performed only once, and the value obtained is used in all subsequent annual NMOC emission rate calculations.~~

~~5. The owner or operator may use other methods to determine the NMOC concentration or a site-specific  $k$  as an alternative to the methods required in paragraphs (a)(3) and (a)(4) of this section if the method has been approved by the Administrator.~~

~~(b) After the installation of a collection and control system in compliance with § 60.755, the owner or operator shall calculate the NMOC emission rate for purposes of determining when the system can be removed as~~

provided in § 60.752(b)(2)(v), using the following equation:

$$M_{NMOC} = 1.89 \times 10^{-3} Q_{LFG} C_{NMOC}$$

where,

$M_{NMOC}$  = mass emission rate of NMOC, megagrams per year

$Q_{LFG}$  = flow rate of landfill gas, cubic meters per minute

$C_{NMOC}$  = NMOC concentration, parts per million by volume as hexane

1. The flow rate of landfill gas,  $Q_{LFG}$ , shall be determined by measuring the total landfill gas flow rate at the common header pipe that leads to the control device using a gas flow measuring device calibrated according to the provisions of section 4 of Method 2E of appendix A of this part.
  2. The average NMOC concentration,  $C_{NMOC}$ , shall be determined by collecting and analyzing landfill gas sampled from the common header pipe before the gas moving or condensate removal equipment using the procedures in Method 25C or Method 18 of appendix A of this part. If using Method 18 of appendix A of this part, the minimum list of compounds to be tested shall be those published in the most recent Compilation of Air Pollutant Emission Factors (AP-42). The sample location on the common header pipe shall be before any condensate removal or other gas refining units. The landfill owner or operator shall divide the NMOC concentration from Method 25C of appendix A of this part by six to convert from  $C_{NMOC}$  as carbon to  $C_{NMOC}$  as hexane.
  3. The owner or operator may use another method to determine landfill gas flow rate and NMOC concentration if the method has been approved by the Administrator.
- (c) When calculating emissions for PSD purposes, the owner or operator of each MSW landfill subject to the provisions of this subpart shall estimate the NMOC emission rate for comparison to the PSD major source and significance levels in §§ 51.166 or 52.21 of this chapter using AP-42 or other approved measurement procedures.
- (d) For the performance test required in § 60.752(b)(2)(iii)(B), Method 25, 25C, or Method 18 of appendix A of this part shall be used to determine compliance with 98 weight percent efficiency or the 20 ppmv outlet concentration level, unless another method to demonstrate compliance has been approved by the Administrator as provided by § 60.752(b)(2)(i)(B). Method 3 or 3A shall be used to determine oxygen for correcting the NMOC concentration as hexane to 3 percent. In cases where the outlet concentration is less than 50 ppm NMOC as carbon (8 ppm NMOC as hexane), Method 25A should be used in place of Method 25. If using Method 18 of appendix A of this part, the minimum list of compounds to be tested shall be those published in the most recent Compilation of Air Pollutant Emission Factors (AP-42). The following equation shall be used to calculate efficiency:

$$\text{Control Efficiency} = (NMOC_{in} - NMOC_{out}) / (NMOC_{in})$$

where,

$NMOC_{in}$  = mass of NMOC entering control device

$NMOC_{out}$  = mass of NMOC exiting control device

- (e) For the performance test required in § 60.752(b)(2)(iii)(A), the net heating value of the combusted landfill gas as determined in § 60.18(f)(3) is calculated from the concentration of methane in the landfill gas as measured by Method 3C. A minimum of three 30-minute Method 3C samples are determined. The measurement of other organic compounds, hydrogen, and carbon monoxide is not applicable. Method 3C may be used to determine the landfill gas molecular weight for calculating the flare gas exit velocity under § 60.18(f)(4).

#### ~~§ 60.755 Compliance provisions.~~

- (a) Except as provided in § 60.752(b)(2)(i)(B), the specified methods in paragraphs (a)(1) through (a)(6) of this section shall be used to determine whether the gas collection system is in compliance with



~~§ 60.752(b)(2)(ii).~~

- ~~1. For the purposes of calculating the maximum expected gas generation flow rate from the landfill to determine compliance with § 60.752(b)(2)(ii)(A)(1), one of the following equations shall be used. The k and L<sub>0</sub> kinetic factors should be those published in the most recent Compilation of Air Pollutant Emission Factors (AP-42) or other site specific values demonstrated to be appropriate and approved by the Administrator. If k has been determined as specified in § 60.754(a)(4), the value of k determined from the test shall be used. A value of no more than 15 years shall be used for the intended use period of the gas mover equipment. The active life of the landfill is the age of the landfill plus the estimated number of years until closure.~~

- ~~(i) For sites with unknown year-to-year solid waste acceptance rate:~~

$$~~Q_m = 2L_0R(e^{-kc} - e^{-kt})~~$$

~~where,~~

~~Q<sub>m</sub> = maximum expected gas generation flow rate, cubic meters per year~~

~~L<sub>0</sub> = methane generation potential, cubic meters per megagram solid waste~~

~~R = average annual acceptance rate, megagrams per year~~

~~k = methane generation rate constant, year<sup>-1</sup>~~

~~t = age of the landfill at equipment installation plus the time the owner or operator intends to use the gas mover equipment or active life of the landfill, whichever is less. If the equipment is installed after closure, t is the age of the landfill at installation, years~~

~~c = time since closure, years (for an active landfill c=0 and e<sup>-kc</sup>=1)~~

- ~~(ii) For sites with known year-to-year solid waste acceptance rate:~~

$$~~Q_M = \sum_{i=1}^n 2kL_0M_i(e^{-kt_i})~~$$

~~where,~~

~~Q<sub>M</sub> = maximum expected gas generation flow rate, cubic meters per year~~

~~k = methane generation rate constant, year<sup>-1</sup>~~

~~L<sub>0</sub> = methane generation potential, cubic meters per megagram solid waste~~

~~M<sub>i</sub> = mass of solid waste in the i<sup>th</sup> section, megagrams~~

~~t<sub>i</sub> = age of the i<sup>th</sup> section, years~~

- ~~(iii) If a collection and control system has been installed, actual flow data may be used to project the maximum expected gas generation flow rate instead of, or in conjunction with, the equations in paragraphs (a)(1)(i) and (ii) of this section. If the landfill is still accepting waste, the actual measured flow data will not equal the maximum expected gas generation rate, so calculations using the equations in paragraphs (a)(1)(i) or (ii) or other methods shall be used to predict the maximum expected gas generation rate over the intended period of use of the gas control system equipment.~~

- ~~2. For the purposes of determining sufficient density of gas collectors for compliance with § 60.752(b)(2)(ii)(A)(2), the owner or operator shall design a system of vertical wells, horizontal collectors, or other collection devices, satisfactory to the Administrator, capable of controlling and extracting gas from all portions of the landfill sufficient to meet all operational and performance standards.~~

- ~~3. For the purpose of demonstrating whether the gas collection system flow rate is sufficient to determine compliance with § 60.752(b)(2)(ii)(A)(3), the owner or operator shall measure gauge pressure in the gas collection header at each individual well, monthly. If a positive pressure exists, action shall be initiated to correct the exceedance within 5 calendar days, except for the three~~



~~conditions allowed under § 60.753(b). If negative pressure cannot be achieved without excess air infiltration within 15 calendar days of the first measurement, the gas collection system shall be expanded to correct the exceedance within 120 days of the initial measurement of positive pressure. Any attempted corrective measure shall not cause exceedances of other operational or performance standards. An alternate timeline for correcting the exceedance may be submitted to the Administrator for approval.~~

- ~~4. Owners or operators are not required to install additional wells as required in paragraph (a)(3) of this section during the first 180 days after gas collection system start-up.~~
  - ~~5. For the purpose of identifying whether excess air infiltration into the landfill is occurring, the owner or operator shall monitor each well monthly for temperature and nitrogen or oxygen as provided in § 60.753(c). If a well exceeds one of these operating parameters, action shall be initiated to correct the exceedance within 5 calendar days. If correction of the exceedance cannot be achieved within 15 calendar days of the first measurement, the gas collection system shall be expanded to correct the exceedance within 120 days of the initial exceedance. Any attempted corrective measure shall not cause exceedances of other operational or performance standards. An alternate timeline for correcting the exceedance may be submitted to the Administrator for approval.~~
  - ~~6. An owner or operator seeking to demonstrate compliance with § 60.752(b)(2)(ii)(A)(4) through the use of a collection system not conforming to the specifications provided in § 60.759 shall provide information satisfactory to the Administrator as specified in § 60.752(b)(2)(i)(C) demonstrating that off-site migration is being controlled.~~
- ~~(b) For purposes of compliance with § 60.753(a), each owner or operator of a controlled landfill shall place each well or design component as specified in the approved design plan as provided in § 60.752(b)(2)(i). Each well shall be installed within 60 days of the date in which the initial solid waste has been in place for a period of:~~
- ~~1. 5 years or more if active; or~~
  - ~~2. 2 years or more if closed or at final grade;~~
- ~~(c) The following procedures shall be used for compliance with the surface methane operational standard as provided in § 60.753(d).~~
- ~~1. After installation of the collection system, the owner or operator shall monitor surface concentrations of methane along the entire perimeter of the collection area and along a pattern that traverses the landfill at 30 meter intervals (or a site-specific established spacing) for each collection area on a quarterly basis using an organic vapor analyzer, flame ionization detector, or other portable monitor meeting the specifications provided in paragraph (d) of this section.~~
  - ~~2. The background concentration shall be determined by moving the probe inlet upwind and downwind outside the boundary of the landfill at a distance of at least 30 meters from the perimeter wells.~~
  - ~~3. Surface emission monitoring shall be performed in accordance with section 4.3.1 of Method 21 of appendix A of this part, except that the probe inlet shall be placed within 5 to 10 centimeters of the ground. Monitoring shall be performed during typical meteorological conditions.~~
  - ~~4. Any reading of 500 parts per million or more above background at any location shall be recorded as a monitored exceedance and the actions specified in paragraphs (c)(4)(i) through (v) of this section shall be taken. As long as the specified actions are taken, the exceedance is not a violation of the operational requirements of § 60.753(d).~~
- ~~(i) The location of each monitored exceedance shall be marked and the location recorded.~~
  - ~~(ii) Cover maintenance or adjustments to the vacuum of the adjacent wells to increase the gas collection in the vicinity of each exceedance shall be made and the location shall be re-monitored within 10 calendar days of detecting the exceedance.~~
  - ~~(iii) If the re-monitoring of the location shows a second exceedance, additional corrective action~~

~~shall be taken and the location shall be monitored again within 10 days of the second exceedance. If the re-monitoring shows a third exceedance for the same location, the action specified in paragraph (c)(4)(v) of this section shall be taken, and no further monitoring of that location is required until the action specified in paragraph (c)(4)(v) has been taken.~~

~~(iv) Any location that initially showed an exceedance but has a methane concentration less than 500 ppm methane above background at the 10-day re-monitoring specified in paragraph (c)(4)(ii) or (iii) of this section shall be re-monitored 1 month from the initial exceedance. If the 1-month re-monitoring shows a concentration less than 500 parts per million above background, no further monitoring of that location is required until the next quarterly monitoring period. If the 1-month re-monitoring shows an exceedance, the actions specified in paragraph (c)(4)(iii) or (v) shall be taken.~~

~~(v) For any location where monitored methane concentration equals or exceeds 500 parts per million above background three times within a quarterly period, a new well or other collection device shall be installed within 120 calendar days of the initial exceedance. An alternative remedy to the exceedance, such as upgrading the blower, header pipes or control device, and a corresponding timeline for installation may be submitted to the Administrator for approval.~~

~~5. The owner or operator shall implement a program to monitor for cover integrity and implement cover repairs as necessary on a monthly basis.~~

~~(d) Each owner or operator seeking to comply with the provisions in paragraph (c) of this section shall comply with the following instrumentation specifications and procedures for surface emission monitoring devices:~~

~~1. The portable analyzer shall meet the instrument specifications provided in section 3 of Method 21 of appendix A of this part, except that "methane" shall replace all references to VOC.~~

~~2. The calibration gas shall be methane, diluted to a nominal concentration of 500 parts per million in air.~~

~~3. To meet the performance evaluation requirements in section 3.1.3 of Method 21 of appendix A of this part, the instrument evaluation procedures of section 4.4 of Method 21 of appendix A of this part shall be used.~~

~~4. The calibration procedures provided in section 4.2 of Method 21 of appendix A of this part shall be followed immediately before commencing a surface monitoring survey.~~

~~(e) The provisions of this subpart apply at all times, except during periods of start-up, shutdown, or malfunction, provided that the duration of start-up, shutdown, or malfunction shall not exceed 5 days for collection systems and shall not exceed 1 hour for treatment or control devices.~~

#### ~~§ 60.756 Monitoring of operations.~~

~~Except as provided in § 60.752(b)(2)(i)(B),~~

~~(a) Each owner or operator seeking to comply with § 60.752(b)(2)(ii)(A) for an active gas collection system shall install a sampling port and a thermometer, other temperature measuring device, or an access port for temperature measurements at each wellhead and:~~

~~1. Measure the gauge pressure in the gas collection header on a monthly basis as provided in § 60.755(a)(3); and~~

~~2. Monitor nitrogen or oxygen concentration in the landfill gas on a monthly basis as provided in § 60.755(a)(5); and~~

~~3. Monitor temperature of the landfill gas on a monthly basis as provided in § 60.755(a)(5).~~

~~(b) Each owner or operator seeking to comply with § 60.752(b)(2)(iii) using an enclosed combustor shall~~

~~calibrate, maintain, and operate according to the manufacturer's specifications, the following equipment:~~

- ~~1. A temperature monitoring device equipped with a continuous recorder and having an accuracy of  $\pm 1$  percent of the temperature being measured expressed in degrees Celsius or  $\pm 0.5^{\circ}\text{C}$ , whichever is greater. A temperature monitoring device is not required for boilers or process heaters with design heat input capacity greater than 44 megawatts.~~
  - ~~2. A device that records flow to or bypass of the control device. The owner or operator shall either:
    - ~~(i) Install, calibrate, and maintain a gas flow rate measuring device that shall record the flow to the control device at least every 15 minutes; or~~
    - ~~(ii) Secure the bypass line valve in the closed position with a car seal or a lock and key type configuration. A visual inspection of the seal or closure mechanism shall be performed at least once every month to ensure that the valve is maintained in the closed position and that the gas flow is not diverted through the bypass line.~~~~
- ~~(c) Each owner or operator seeking to comply with § 60.752(b)(2)(iii) using an open flare shall install, calibrate, maintain, and operate according to the manufacturer's specifications the following equipment:~~
- ~~1. A heat sensing device, such as an ultraviolet beam sensor or thermocouple, at the pilot light or the flame itself to indicate the continuous presence of a flame.~~
  - ~~2. A device that records flow to or bypass of the flare. The owner or operator shall either:
    - ~~(i) Install, calibrate, and maintain a gas flow rate measuring device that shall record the flow to the control device at least every 15 minutes; or~~
    - ~~(ii) Secure the bypass line valve in the closed position with a car seal or a lock and key type configuration. A visual inspection of the seal or closure mechanism shall be performed at least once every month to ensure that the valve is maintained in the closed position and that the gas flow is not diverted through the bypass line.~~~~
- ~~(d) Each owner or operator seeking to demonstrate compliance with § 60.752(b)(2)(iii) using a device other than an open flare or an enclosed combustor shall provide information satisfactory to the Administrator as provided in § 60.752(b)(2)(i)(B) describing the operation of the control device, the operating parameters that would indicate proper performance, and appropriate monitoring procedures. The Administrator shall review the information and either approve it, or request that additional information be submitted. The Administrator may specify additional appropriate monitoring procedures.~~
- ~~(e) Each owner or operator seeking to install a collection system that does not meet the specifications in § 60.759 or seeking to monitor alternative parameters to those required by § 60.753 through § 60.756 shall provide information satisfactory to the Administrator as provided in § 60.752(b)(2)(i)(B) and (C) describing the design and operation of the collection system, the operating parameters that would indicate proper performance, and appropriate monitoring procedures. The Administrator may specify additional appropriate monitoring procedures.~~
- ~~(f) Each owner or operator seeking to demonstrate compliance with § 60.755(c), shall monitor surface concentrations of methane according to the instrument specifications and procedures provided in § 60.755(d). Any closed landfill that has no monitored exceedances of the operational standard in three consecutive quarterly monitoring periods may skip to annual monitoring. Any methane reading of 500 ppm or more above background detected during the annual monitoring returns the frequency for that landfill to quarterly monitoring.~~

#### ~~§ 60.757 Reporting requirements.~~

~~Except as provided in § 60.752(b)(2)(i)(B),~~

- ~~(a) Each owner or operator subject to the requirements of this subpart shall submit an initial design capacity report to the Administrator.~~

- ~~1. The initial design capacity report shall fulfill the requirements of the notification of the date construction is commenced as required under § 60.7(a)(1) and shall be submitted no later than:
  - ~~(i) June 10, 1996, for landfills that commenced construction, modification, or reconstruction on or after May 30, 1991 but before March 12, 1996, or~~
  - ~~(ii) Ninety days after the date of commenced construction, modification, or reconstruction for landfills that commence construction, modification, or reconstruction on or after March 12, 1996.~~~~
- ~~2. The initial design capacity report shall contain the following information:
  - ~~(i) A map or plot of the landfill, providing the size and location of the landfill, and identifying all areas where solid waste may be landfilled according to the permit issued by the State, local, or Tribal agency responsible for regulating the landfill.~~
  - ~~(ii) The maximum design capacity of the landfill. Where the maximum design capacity is specified in the permit issued by the State, local, or Tribal agency responsible for regulating the landfill, a copy of the permit specifying the maximum design capacity may be submitted as part of the report. If the maximum design capacity of the landfill is not specified in the permit, the maximum design capacity shall be calculated using good engineering practices. The calculations shall be provided, along with the relevant parameters as part of the report. The State, Tribal, local agency or Administrator may request other reasonable information as may be necessary to verify the maximum design capacity of the landfill.~~~~
- ~~3. An amended design capacity report shall be submitted to the Administrator providing notification of an increase in the design capacity of the landfill, within 90 days of an increase in the maximum design capacity of the landfill to above 2.5 million megagrams and 2.5 million cubic meters. This increase in design capacity may result from an increase in the permitted volume of the landfill or an increase in the density as documented in the annual recalculation required in § 60.758(f).~~
- ~~(b) Each owner or operator subject to the requirements of this subpart shall submit an NMOC emission rate report to the Administrator initially and annually thereafter, except as provided for in paragraphs (b)(1)(ii) or (b)(3) of this section. The Administrator may request such additional information as may be necessary to verify the reported NMOC emission rate.~~
  - ~~1. The NMOC emission rate report shall contain an annual or 5-year estimate of the NMOC emission rate calculated using the formula and procedures provided in § 60.754(a) or (b), as applicable.
    - ~~(i) The initial NMOC emission rate report may be combined with the initial design capacity report required in paragraph (a) of this section and shall be submitted no later than indicated in paragraphs (b)(1)(i)(A) and (B) of this section. Subsequent NMOC emission rate reports shall be submitted annually thereafter, except as provided for in paragraphs (b)(1)(ii) and (b)(3) of this section.
      - ~~(A) June 10, 1996, for landfills that commenced construction, modification, or reconstruction on or after May 30, 1991, but before March 12, 1996, or~~
      - ~~(B) Ninety days after the date of commenced construction, modification, or reconstruction for landfills that commence construction on or after March 12, 1996.~~~~
    - ~~(ii) If the estimated NMOC emission rate as reported in the annual report to the Administrator is less than 50 megagrams per year in each of the next 5 consecutive years, the owner or operator may elect to submit an estimate of the NMOC emission rate for the next 5-year period in lieu of the annual report. This estimate shall include the current amount of solid waste in place and the estimated waste acceptance rate for each year of the 5 years for which an NMOC emission rate is estimated. All data and calculations upon which this estimate is based shall be provided to the Administrator. This estimate shall be revised at least once every 5 years. If the actual waste acceptance rate exceeds the estimated waste acceptance rate in any year reported in the 5-year estimate, a revised 5-year estimate shall be submitted to the Administrator. The revised estimate shall cover the 5-year period~~~~

~~beginning with the year in which the actual waste acceptance rate exceeded the estimated waste acceptance rate.~~

- ~~2. The NMOC emission rate report shall include all the data, calculations, sample reports and measurements used to estimate the annual or 5-year emissions.~~
  - ~~3. Each owner or operator subject to the requirements of this subpart is exempted from the requirements of paragraphs (b)(1) and (2) of this section, after the installation of a collection and control system in compliance with § 60.752(b)(2), during such time as the collection and control system is in operation and in compliance with §§ 60.753 and 60.755.~~
- ~~(c) Each owner or operator subject to the provisions of § 60.752(b)(2)(i) shall submit a collection and control system design plan to the Administrator within 1 year of the first report, required under paragraph (b) of this section, in which the emission rate exceeds 50 megagrams per year, except as follows:~~
- ~~1. If the owner or operator elects to recalculate the NMOC emission rate after Tier 2 NMOC sampling and analysis as provided in § 60.754(a)(3) and the resulting rate is less than 50 megagrams per year, annual periodic reporting shall be resumed, using the Tier 2 determined site-specific NMOC concentration, until the calculated emission rate is equal to or greater than 50 megagrams per year or the landfill is closed. The revised NMOC emission rate report, with the recalculated emission rate based on NMOC sampling and analysis, shall be submitted within 180 days of the first calculated exceedance of 50 megagrams per year.~~
  - ~~2. If the owner or operator elects to recalculate the NMOC emission rate after determining a site-specific methane generation rate constant (k), as provided in Tier 3 in § 60.754(a)(4), and the resulting NMOC emission rate is less than 50 Mg/yr, annual periodic reporting shall be resumed. The resulting site-specific methane generation rate constant (k) shall be used in the emission rate calculation until such time as the emissions rate calculation results in an exceedance. The revised NMOC emission rate report based on the provisions of § 60.754(a)(4) and the resulting site-specific methane generation rate constant (k) shall be submitted to the Administrator within 1 year of the first calculated emission rate exceeding 50 megagrams per year.~~
- ~~(d) Each owner or operator of a controlled landfill shall submit a closure report to the Administrator within 30 days of waste acceptance cessation. The Administrator may request additional information as may be necessary to verify that permanent closure has taken place in accordance with the requirements of 40 CFR 258.60 of this title. If a closure report has been submitted to the Administrator, no additional wastes may be placed into the landfill without filing a notification of modification as described under § 60.7(a)(4).~~
- ~~(e) Each owner or operator of a controlled landfill shall submit an equipment removal report to the Administrator 30 days prior to removal or cessation of operation of the control equipment.~~
- ~~1. The equipment removal report shall contain all of the following items:~~
    - ~~(i) A copy of the closure report submitted in accordance with paragraph (d) of this section;~~
    - ~~(ii) A copy of the initial performance test report demonstrating that the 15 year minimum control period has expired; and~~
    - ~~(iii) Dated copies of three successive NMOC emission rate reports demonstrating that the landfill is no longer producing 50 megagrams or greater of NMOC per year.~~
  - ~~2. The Administrator may request such additional information as may be necessary to verify that all of the conditions for removal in § 60.752(b)(2)(v) have been met.~~
- ~~(f) Each owner or operator of a landfill seeking to comply with § 60.752(b)(2) using an active collection system designed in accordance with § 60.752(b)(2)(ii) shall submit to the Administrator annual reports of the recorded information in (f)(1) through (f)(6) of this paragraph. The initial annual report shall be submitted within 180 days of installation and start-up of the collection and control system, and shall include the initial performance test report required under § 60.8. For enclosed combustion devices and flares, reportable exceedances are defined under § 60.758(c).~~

- ~~1. Value and length of time for exceedance of applicable parameters monitored under § 60.756(a), (b), (c), and (d).~~
  - ~~2. Description and duration of all periods when the gas stream is diverted from the control device through a bypass line or the indication of bypass flow as specified under § 60.756.~~
  - ~~3. Description and duration of all periods when the control device was not operating for a period exceeding 1 hour and length of time the control device was not operating.~~
  - ~~4. All periods when the collection system was not operating in excess of 5 days.~~
  - ~~5. The location of each exceedance of the 500 parts per million methane concentration as provided in § 60.753(d) and the concentration recorded at each location for which an exceedance was recorded in the previous month.~~
  - ~~6. The date of installation and the location of each well or collection system expansion added pursuant to paragraphs (a)(3), (b), and (c)(4) of § 60.755.~~
- ~~(g) Each owner or operator seeking to comply with § 60.752(b)(2)(iii) shall include the following information with the initial performance test report required under § 60.8:~~
- ~~1. A diagram of the collection system showing collection system positioning including all wells, horizontal collectors, surface collectors, or other gas extraction devices, including the locations of any areas excluded from collection and the proposed sites for the future collection system expansion;~~
  - ~~2. The data upon which the sufficient density of wells, horizontal collectors, surface collectors, or other gas extraction devices and the gas mover equipment sizing are based;~~
  - ~~3. The documentation of the presence of asbestos or nondegradable material for each area from which collection wells have been excluded based on the presence of asbestos or nondegradable material;~~
  - ~~4. The sum of the gas generation flow rates for all areas from which collection wells have been excluded based on nonproductivity and the calculations of gas generation flow rate for each excluded area; and~~
  - ~~5. The provisions for increasing gas mover equipment capacity with increased gas generation flow rate, if the present gas mover equipment is inadequate to move the maximum flow rate expected over the life of the landfill; and~~
  - ~~6. The provisions for the control of off-site migration.~~

~~§ 60.758 Recordkeeping requirements.~~

- ~~(a) Except as provided in § 60.752(b)(2)(i)(B), each owner or operator of an MSW landfill subject to the provisions of § 60.752(b) shall keep for at least 5 years up-to-date, readily accessible, on-site records of the maximum design capacity report which triggered §60.752(b), the current amount of solid waste in place, and the year-by-year waste acceptance rate. Off-site records may be maintained if they are retrievable within 4 hours. Either paper copy or electronic formats are acceptable.~~
- ~~(b) Except as provided in § 60.752(b)(2)(i)(B), each owner or operator of a controlled landfill shall keep up-to-date, readily accessible records for the life of the control equipment of the data listed in paragraphs (b)(1) through (b)(4) of this section as measured during the initial performance test or compliance determination. Records of subsequent tests or monitoring shall be maintained for a minimum of 5 years. Records of the control device vendor specifications shall be maintained until removal.~~
- ~~1. Where an owner or operator subject to the provisions of this subpart seeks to demonstrate compliance with § 60.752(b)(2)(ii):~~
    - ~~(i) The maximum expected gas generation flow rate as calculated in § 60.755(a)(1). The~~

~~owner or operator may use another method to determine the maximum gas generation flow rate, if the method has been approved by the Administrator.~~

~~(ii) The density of wells, horizontal collectors, surface collectors, or other gas extraction devices determined using the procedures specified in § 60.759(a)(1).~~

~~2. Where an owner or operator subject to the provisions of this subpart seeks to demonstrate compliance with § 60.752(b)(2)(iii) through use of an enclosed combustion device other than a boiler or process heater with a design heat input capacity greater than 44 megawatts:~~

~~(i) The average combustion temperature measured at least every 15 minutes and averaged over the same time period of the performance test.~~

~~(ii) The percent reduction of NMOC determined as specified in § 60.752(b)(2)(iii)(B) achieved by the control device.~~

~~3. Where an owner or operator subject to the provisions of this subpart seeks to demonstrate compliance with § 60.752(b)(2)(iii)(B)(1) through use of a boiler or process heater of any size: a description of the location at which the collected gas vent stream is introduced into the boiler or process heater over the same time period of the performance testing.~~

~~4. Where an owner or operator subject to the provisions of this subpart seeks to demonstrate compliance with § 60.752(b)(2)(iii)(A) through use of an open flare, the flare type (i.e., steam-assisted, air-assisted, or nonassisted), all visible emission readings, heat content determination, flow rate or bypass flow rate measurements, and exit velocity determinations made during the performance test as specified in § 60.18; continuous records of the flare pilot flame or flare flame monitoring and records of all periods of operations during which the pilot flame of the flare flame is absent.~~

~~(c) Except as provided in § 60.752(b)(2)(i)(B), each owner or operator of a controlled landfill subject to the provisions of this subpart shall keep for 5 years up-to-date, readily accessible continuous records of the equipment operating parameters specified to be monitored in § 60.756 as well as up-to-date, readily accessible records for periods of operation during which the parameter boundaries established during the most recent performance test are exceeded.~~

~~1. The following constitute exceedances that shall be recorded and reported under § 60.757(f):~~

~~(i) For enclosed combustors except for boilers and process heaters with design heat input capacity of 44 megawatts (150 million British thermal unit per hour) or greater, all 3-hour periods of operation during which the average combustion temperature was more than 28-°C below the average combustion temperature during the most recent performance test at which compliance with § 60.752(b)(2)(iii) was determined.~~

~~(ii) For boilers or process heaters, whenever there is a change in the location at which the vent stream is introduced into the flame zone as required under paragraph (b)(3) of this section.~~

~~2. Each owner or operator subject to the provisions of this subpart shall keep up-to-date, readily accessible continuous records of the indication of flow to the control device or the indication of bypass flow or records of monthly inspections of car seals or lock-and-key configurations used to seal bypass lines, specified under § 60.756.~~

~~3. Each owner or operator subject to the provisions of this subpart who uses a boiler or process heater with a design heat input capacity of 44 megawatts or greater to comply with § 60.752(b)(2)(iii) shall keep an up-to-date, readily accessible record of all periods of operation of the boiler or process heater. (Examples of such records could include records of steam use, fuel use, or monitoring data collected pursuant to other State, local, Tribal, or Federal regulatory requirements.)~~

~~4. Each owner or operator seeking to comply with the provisions of this subpart by use of an open flare shall keep up-to-date, readily accessible continuous records of the flame or flare pilot flame monitoring specified under § 60.756(c), and up-to-date, readily accessible records of all periods of~~



operation in which the flame or flare pilot flame is absent.

- ~~(d) Except as provided in § 60.752(b)(2)(i)(B), each owner or operator subject to the provisions of this subpart shall keep for the life of the collection system an up-to-date, readily accessible plot map showing each existing and planned collector in the system and providing a unique identification location label for each collector.~~
  - ~~1. Each owner or operator subject to the provisions of this subpart shall keep up-to-date, readily accessible records of the installation date and location of all newly installed collectors as specified under § 60.755(b).~~
  - ~~2. Each owner or operator subject to the provisions of this subpart shall keep readily accessible documentation of the nature, date of deposition, amount, and location of asbestos-containing or nondegradable waste excluded from collection as provided in § 60.759(a)(3)(i) as well as any nonproductive areas excluded from collection as provided in § 60.759(a)(3)(ii).~~
- ~~(e) Except as provided in § 60.752(b)(2)(i)(B), each owner or operator subject to the provisions of this subpart shall keep for at least 5 years up-to-date, readily accessible records of all collection and control system exceedances of the operational standards in § 60.753, the reading in the subsequent month whether or not the second reading is an exceedance, and the location of each exceedance.~~
- ~~(f) Landfill owners or operators who convert design capacity from volume to mass or mass to volume to demonstrate that landfill design capacity is less than 2.5 million megagrams or 2.5 million cubic meters, as provided in the definition of "design capacity" shall keep readily accessible, on-site records of the annual recalculation of site-specific density, design capacity, and the supporting documentation. Off-site records may be maintained if they are retrievable within 4 hours. Either paper copy or electronic formats are acceptable.~~

#### ~~§ 60.759 Specifications for active collection systems.~~

- ~~(a) Each owner or operator seeking to comply with § 60.752(b)(2)(i) shall site active collection wells, horizontal collectors, surface collectors, or other extraction devices at a sufficient density throughout all gas-producing areas using the following procedures unless alternative procedures have been approved by the Administrator as provided in § 60.752(b)(2)(i)(C) and (D):~~
  - ~~1. The collection devices within the interior and along the perimeter areas shall be certified to achieve comprehensive control of surface gas emissions by a professional engineer. The following issues shall be addressed in the design: depths of refuse, refuse gas generation rates and flow characteristics, cover properties, gas system expandability, leachate and condensate management, accessibility, compatibility with filling operations, integration with closure and use, air intrusion control, corrosion resistance, fill settlement, and resistance to the refuse decomposition heat.~~
  - ~~2. The sufficient density of gas collection devices determined in paragraph (a)(1) of this section shall address landfill gas migration issues and augmentation of the collection system through the use of active or passive systems at the landfill perimeter or exterior.~~
  - ~~3. The placement of gas collection devices determined in paragraph (a)(1) of this section shall control all gas-producing areas, except as provided by paragraphs (a)(3)(i) and (a)(3)(ii) of this section.~~
    - ~~(i) Any segregated area of asbestos or nondegradable material may be excluded from collection if documented as provided under § 60.758(d). The documentation shall provide the nature, date of deposition, location and amount of asbestos or nondegradable material deposited in the area, and shall be provided to the Administrator upon request.~~
    - ~~(ii) Any nonproductive area of the landfill may be excluded from control, provided that the total of all excluded areas can be shown to contribute less than 1 percent of the total amount of NMOC emissions from the landfill. The amount, location, and age of the material shall be documented and provided to the Administrator upon request. A separate NMOC emissions estimate shall be made for each section proposed for exclusion, and the sum of all such sections shall be compared to the NMOC emissions estimate for the entire landfill. Emissions from each section shall be computed using the following equation:~~



$$Q_i = 2 k L_0 M_i (e^{-kt_i}) (C_{NMOC}) (3.6 \times 10^{-9})$$

where,

$Q_i$  = NMOC emission rate from the  $i^{th}$  section, megagrams per year

$k$  = methane generation rate constant, year<sup>-1</sup>

$L_0$  = methane generation potential, cubic meters per megagram solid waste

$M_i$  = mass of the degradable solid waste in the  $i^{th}$  section, megagram

$t_i$  = age of the solid waste in the  $i^{th}$  section, years

$C_{NMOC}$  = concentration of nonmethane organic compounds, parts per million by volume

$3.6 \times 10^{-9}$  = conversion factor

(iii) The values for  $k$ ,  $L_0$ , and  $C_{NMOC}$  determined in field testing shall be used if field testing has been performed in determining the NMOC emission rate or the radii of influence (this distance from the well center to a point in the landfill where the pressure gradient applied by the blower or compressor approaches zero). If field testing has not been performed, the default values for  $k$ ,  $L_0$  and  $C_{NMOC}$  provided in § 60.754(a)(1) or the alternate values from § 60.754(a)(5) shall be used. The mass of nondegradable solid waste contained within the given section may be subtracted from the total mass of the section when estimating emissions provided the nature, location, age, and amount of the nondegradable material is documented as provided in paragraph (a)(3)(i) of this section.

(b) Each owner or operator seeking to comply with § 60.752(b)(2)(i)(A) shall construct the gas collection devices using the following equipment or procedures:

1. The landfill gas extraction components shall be constructed of polyvinyl chloride (PVC), high density polyethylene (HDPE) pipe, fiberglass, stainless steel, or other nonporous corrosion resistant material of suitable dimensions to: convey projected amounts of gases; withstand installation, static, and settlement forces; and withstand planned overburden or traffic loads. The collection system shall extend as necessary to comply with emission and migration standards. Collection devices such as wells and horizontal collectors shall be perforated to allow gas entry without head loss sufficient to impair performance across the intended extent of control. Perforations shall be situated with regard to the need to prevent excessive air infiltration.
2. Vertical wells shall be placed so as not to endanger underlying liners and shall address the occurrence of water within the landfill. Holes and trenches constructed for piped wells and horizontal collectors shall be of sufficient cross-section so as to allow for their proper construction and completion including, for example, centering of pipes and placement of gravel backfill. Collection devices shall be designed so as not to allow indirect short circuiting of air into the cover or refuse into the collection system or gas into the air. Any gravel used around pipe perforations should be of a dimension so as not to penetrate or block perforations.
3. Collection devices may be connected to the collection header pipes below or above the landfill surface. The connector assembly shall include a positive closing throttle valve, any necessary seals and couplings, access couplings and at least one sampling port. The collection devices shall be constructed of PVC, HDPE, fiberglass, stainless steel, or other nonporous material of suitable thickness.

(c) Each owner or operator seeking to comply with § 60.752(b)(2)(i)(A) shall convey the landfill gas to a control system in compliance with § 60.752(b)(2)(iii) through the collection header pipe(s). The gas mover equipment shall be sized to handle the maximum gas generation flow rate expected over the intended use period of the gas moving equipment using the following procedures:

1. For existing collection systems, the flow data shall be used to project the maximum flow rate. If no flow data exists, the procedures in paragraph (c)(2) of this section shall be used.
2. For new collection systems, the maximum flow rate shall be in accordance with § 60.755(a)(1).

Authority: T.C.A. §§ 4-5-201 et seq. and 68-201-101 et seq.

\* If a roll-call vote was necessary, the vote by the Agency on these rulemaking hearing rules was as follows:

Board Member	Aye	No	Abstain	Absent	Signature (if required)
<b>Dr. Ronné Adkins</b> Commissioner's Designee, Dept. of Environment and Conservation	X				
<b>Dr. John Benitez</b> Licensed Physician with experience in health effects of air pollutants				X	
<b>Dr. Joshua Fu</b> Involved with Institution of Higher Learning on air pollution evaluation and control	X				
<b>Mike Haverstick</b> Working in management in Private Manufacturing	X				
<b>Dr. Shawn A. Hawkins</b> Working in field related to Agriculture or Conservation				X	
<b>Richard Holland</b> Working for Industry with technical experience	X				
<b>Caitlin Roberts Jennings</b> Small Generator of Air Pollution representing Automotive Interests	X				
<b>Dr. Chunrong Jia</b> Environmental Interests				X	
<b>Ken Moore</b> Working in Municipal Government				X	
<b>Stephen Moore</b> Working for Industry with technical experience	X				
<b>Amy Spann, PE</b> Registered Professional Engineer	X				
<b>Nicholas Ramos</b> Conservation Interest	X				
<b>Larry Waters</b> County Mayor				X	
<b>Jimmy West</b> Commissioner's Designee, Dept. of Economic and Community Development	X				

I certify that this is an accurate and complete copy of rulemaking hearing rules, lawfully promulgated and adopted by the Air Pollution Control Board on 05/10/2023, and is in compliance with the provisions of T.C.A. § 4-5-222.

I further certify the following:

Notice of Rulemaking Hearing filed with the Department of State on: \_\_\_\_\_

Rulemaking Hearing(s) Conducted on: (add more dates). 12/06/2022

Date: May 17, 2023

Signature: \_\_\_\_\_

Name of Officer: Michelle W. Owenby

Title of Officer: Technical Secretary

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Agency/Board/Commission: Air Pollution Control Board

Rule Chapter Number(s): 0400-30-39 and 1200-03-07

All rulemaking hearing rules provided for herein have been examined by the Attorney General and Reporter of the State of Tennessee and are approved as to legality pursuant to the provisions of the Administrative Procedures Act, Tennessee Code Annotated, Title 4, Chapter 5.

\_\_\_\_\_  
Jonathan Skrmetti  
Attorney General and Reporter

\_\_\_\_\_  
Date

**Department of State Use Only**

Filed with the Department of State on: \_\_\_\_\_

Effective on: \_\_\_\_\_

\_\_\_\_\_  
Tre Hargett  
Secretary of State

## Public Hearing Comments

One copy of a document that satisfies T.C.A. § 4-5-222 must accompany the filing.

The federal requirements for adopting a state 111(d) plan include EPA review and state response to EPA comments. The proposed state 111(d) plan was introduced at the same public hearing as this rulemaking. To comply with the federal requirements and T.C.A. § 4-5-222, EPA's comments towards the proposed state 111(d) plan and this rulemaking will be addressed in tandem. All comments were submitted by U.S. EPA.

1. Comment: The cover letter of Tennessee's pre-hearing submittal states that this submittal is a "prehearing draft copy of Tennessee's Clean Air Act §111(d) Plan submittal for compliance with 40 C.F.R. Part 60 Subpart Cf [and that] Tennessee proposes to comply with Subpart Cf by incorporating the equivalent federal plan (40 C.F.R. Part 62 Subpart OOO) by reference." However, one of the newly proposed rules – Regulation 0400-30-39-.03(1)(a)1 – states that "'Administrator' means the Technical Secretary of the Tennessee Air Pollution Control Board in those cases for which authority to implement and enforce provisions of the rule have been delegated to the State of Tennessee. Otherwise, 'Administrator' means the Administrator of the United States Environmental Protection Agency." (Emphasis added). Because this particular rule discusses delegation, it is unclear if Tennessee is intending to request delegation of the Federal Plan or is intending to submit its own Section 111(d) plan based upon the Federal Plan as stated in the prehearing submittal cover letter. For the remainder of EPA's comments, EPA will assume that Tennessee is intending to submit its own plan under Section 111(d).

Response: Tennessee is submitting a 111(d) plan and not a delegation request. The "delegation" language to which EPA refers is included in Rule 0400-30-39-.03(1)(a)1, and this language reflects EPA's own language in 40 C.F.R. § 62.16710(b) ("The following authorities will not be delegated to state, local, or tribal agencies"). Tennessee has revised the language of Rule 0400-30-39-.03(1)(a)1 (see response to comment #2) to remove the reference to delegation.

2. Comment: Tennessee's pre-hearing plan proposes to adopt a new rule that states, in part, the following:
  - "All facilities subject to this paragraph shall comply with the provisions of 40 C.F.R. Part 62 Subpart OOO, §§ 62.16710 through 62.16730."
  - "The provisions of 40 C.F.R. Part 62 Subpart OOO (Federal Plan Requirements for Municipal Solid Waste Landfills That Commenced Construction On or Before July 17, 2014, and Have Not Been Modified or Reconstructed Since July 17, 2014), as published in the July 1, 2022, edition of the Code of Federal Regulations, are hereby adopted by reference."

While EPA believes as a general matter that adopting by reference the substantive requirements applicable to sources within 40 C.F.R. Part 62 Subpart OOO (hereafter "Federal Plan") into Tennessee's regulations could form the basis of an approvable Subpart Cf plan, Tennessee's proposed blanket adoption of this rule presents two categories of concerns that should be addressed before submitting the plan to EPA.

First, there are certain provisions within the Federal Plan that explicitly cannot be delegated to states. See generally 40 C.F.R. § 62.16710(b). Adoption of provisions of the type discussed in 40 C.F.R. § 62.16710(b) could render the plan unapprovable by EPA. While EPA recognizes that Tennessee appears to not be seeking delegation of the Federal Plan and is instead proposing to submit a state plan based on the Federal Plan, many of the same limitations on the scope of delegation of the Federal Plan nonetheless still apply. For example, 40 C.F.R. § 62.16718(a)(5) – which allows EPA to approve alternative NMOC concentration monitoring approaches and is a provision that Tennessee is proposing to adopt by reference – cannot be delegated to states under 40 C.F.R. § 62.16710(b). Likewise, EPA does not believe that it could approve this type of provision in Tennessee's Section 111(d) state plan because it would provide substantial discretion to TDEC to approve "other methods to determine the NMOC concentration or a site-specific methane generation rate constant as an alternative..." One possible approach to address this comment would be for TDEC to adopt by reference 40 C.F.R. Part 62 Subpart OOO, except for any provisions of the types referenced in 40 C.F.R. § 62.16710(b).

Second, there are certain other provisions within 40 C.F.R. Part 62 Subpart OOO that may be problematic to adopt by reference in full. Examples of such provisions include:

- § 62.16710(b) (this provision lists authorities that cannot be delegated by EPA)
- § 62.16711(b) (this provision uses the phrase “EPA-approved”)
- § 62.16712(a)(5) (this provision uses the phrase “EPA-approved”)
- § 62.16718(a)(5) (this provision discusses approval of alternative methods to determine NMOC concentration)
- § 62.16724 (these provisions contain reporting guidelines that reference EPA and certain EPA reporting systems, such as the Central Data Exchange)

Response: Tennessee revised the definition of “Administrator” in Rule 0400-30-39-.03(1)(a)1 as follows to address EPA’s concerns:

“Administrator” means the Technical Secretary of the Tennessee Air Pollution Control Board, except that with respect to 40 C.F.R. §§ 62.16710(b) (and the specific authorities enumerated therein), 62.16711(b), 62.16712(a)(5), 62.16718(a)(5), and 62.16724, “Administrator” means the Administrator of the United States Environmental Protection Agency or the Administrator’s authorized representative.

Incorporations by reference frequently capture provisions for which authority is not delegated to the state or local agency, and there is no reason to exclude the specific provisions enumerated by EPA from the final rule.

3. Comment: EPA recommends that TDEC consider adding language to the narrative which informs reviewers/users that until a state plan is approved, EPA is required to administer the Federal Plan within Tennessee. Related to this topic, EPA additionally recommends including language in the narrative indicating whether and how the state intends to incorporate any EPA determinations undertaken during the course of implementing the Federal Plan. Alternatively, TDEC may choose to address this issue on a case-by-case basis for each individual facility.

Response: EPA’s requested language was added to the table of 111(d) plan requirements, which was separately the subject of a public hearing on December 6, 2022. Regarding EPA’s related issue (EPA determinations undertaken during the course of implementing the Federal Plan), any such requirements will be addressed on a case-by-case basis for each individual facility.

4. Comment: Page 12, Rule 0400-30-39-.03(1)(d) states “[f]or any facility subject to this paragraph, compliance with 40 C.F.R. Part 62 Subpart OOO, as adopted herein, ensures compliance with the requirements codified in 40 C.F.R. Part 60 Subparts Cc, Cf, and WWW.” At the same time, Tennessee proposes to repeal Rules 1200-03-07-.07(7) and 1200-03-07-07(9), which implement the landfill requirements established by 40 C.F.R. Part 60 Subpart WWW (Standards of Performance for Municipal Solid Waste Landfills) and 40 C.F.R. Part 60 Subpart Cc (Emission Guidelines and Compliance Times for Municipal Solid Waste Landfills). EPA recommends removing the proposed language in Rule 0400-30-39-.03(1)(d) because this language may have unintended consequences. For example, portions of 40 C.F.R. Part 62 Subpart OOO regarding certain legacy landfills allow for compliance with aspects of the Federal Plan through compliance with portions of 40 C.F.R. Part 60, Subpart WWW; Subpart GGG of 40 C.F.R. Part 62; or a state plan implementing 40 C.F.R. Part 60, Subpart Cc. Rule 0400-30-39-.03(1)(d) appears to propose the inverse here.

Response: The proposed language of Rule 0400-30-39-.03(1)(d) was removed from the final rule. EPA’s revision to 40 C.F.R. § 60.750(d)(1) states that municipal solid waste landfills must continue to comply with Subpart WWW until they become subject to the more stringent requirements in an approved and effective state or federal plan that implements 40 C.F.R. Part 60 Subpart Cf. This EPA revision accomplishes the intent and purpose of the deleted language.

5. Comment: Appendix F provides a list of affected Municipal Solid Waste Landfills, but the list appears to include certain modified landfills subject to NSPS XXX as applicable to the Federal Plan requirements. Please consider removing 40 C.F.R. Part 60 Subpart XXX landfills from the 111(d) State Plan.

Response: NSPS XXX landfills will be removed from the final plan.

## Regulatory Flexibility Addendum

Pursuant to T.C.A. §§ 4-5-401 through 4-5-404, prior to initiating the rule making process, all agencies shall conduct a review of whether a proposed rule or rule affects small business.

This rule is federally mandated and substantially codifies existing state or federal law, as follows.

- Section 111(d) of the Clean Air Act requires the Administrator of the U. S. EPA to prescribe regulations under which each state must submit plans establishing standards for any stationary source category subject to Section 111 of the federal act for any existing source. Section 111(d)(2) grants the Administrator the authority to prescribe a federal plan that applies if any state fails to submit a satisfactory plan.
- 40 C.F.R. Part 60 Subpart Cf establishes EPA's state plan requirements for municipal solid waste landfills, and 40 C.F.R. Part 62 Subpart OOO specifies equivalent federal plan requirements.
- The federal plan, which is implemented and enforced directly by EPA, applies if Tennessee fails to submit a state plan.
- This rule satisfies the requirements of 40 C.F.R. Part 60 Subpart Cf. Tennessee satisfied this requirement by adopting the language of 40 C.F.R. Part 62 Subpart OOO, because the federal plan language removes the requirement for existing landfills to resubmit certain reports (i.e., the federal plan language is slightly less burdensome than the state plan language).

Pursuant to T.C.A. § 4-5-404, a regulatory flexibility analysis is not required.

### **Impact on Local Governments**

Pursuant to T.C.A. §§ 4-5-220 and 4-5-228, "On any rule and regulation proposed to be promulgated, the proposing agency shall state in a simple declarative sentence, without additional comments on the merits or the policy of the rule or regulation, whether the rule or regulation may have a projected financial impact on local governments. The statement shall describe the financial impact in terms of increase in expenditures or decrease in revenues."

The Board anticipates that this rule will not result in an increase in expenditures or a decrease in revenues for local governments.



## Additional Information Required by Joint Government Operations Committee

All agencies, upon filing a rule, must also submit the following pursuant to T.C.A. § 4-5-226(i)(1).

- (A)** A brief summary of the rule and a description of all relevant changes in previous regulations effectuated by such rule;

This rulemaking amends Chapter 0400-30-39 to add new Rule 0400-30-39-.03 to include compliance requirements for municipal solid waste landfills, as codified in 40 C.F.R. Part 62 Subpart OOO. This rulemaking also amends paragraphs (7) and (9) of Rule 1200-03-07-.07 to remove corresponding, but outdated, landfill requirements.

- (B)** A citation to and brief description of any federal law or regulation or any state law or regulation mandating promulgation of such rule or establishing guidelines relevant thereto;

This rule is federally mandated and substantially codifies existing state or federal law, as follows.

- Section 111(d) of the Clean Air Act requires the Administrator of the U. S. EPA to prescribe regulations under which each state must submit plans establishing standards for any stationary source category subject to Section 111 of the federal act for any existing source. Section 111(d)(2) grants the Administrator the authority to prescribe a federal plan that applies if any state fails to submit a satisfactory plan.
- 40 C.F.R. Part 60 Subpart Cf establishes EPA's state plan requirements for municipal solid waste landfills, and 40 C.F.R. Part 62 Subpart OOO specifies equivalent federal plan requirements.
- The federal plan, which is implemented and enforced directly by EPA, applies if Tennessee fails to submit a state plan.

This rule satisfies the requirements of 40 C.F.R. Part 60 Subpart Cf. Tennessee satisfied this requirement by adopting the language of 40 C.F.R. Part 62 Subpart OOO, because the federal plan language removes the requirement for existing landfills to resubmit certain reports (i.e., the federal plan language is slightly less burdensome than the state plan language).

- (C)** Identification of persons, organizations, corporations or governmental entities most directly affected by this rule, and whether those persons, organizations, corporations or governmental entities urge adoption or rejection of this rule;

Persons, organizations, corporations, or governmental entities most directly affected by this rulemaking are the following facilities:

Dyersburg City Landfill (Dyer County); Jefferson County Landfill (Jefferson County); Jere Kirk Disposal (Dyer County); Lauderdale County Landfill (Lauderdale County); Pickett County Landfill (Pickett County); Sevier Solid Waste, Inc. (Sevier County); Carter Valley Landfill (Hawkins County); Middle Point Landfill (Rutherford County); North Shelby Landfill (Shelby County); South Shelby Landfill (Shelby County); Matlock Bend Landfill (Loudon County); Rhea County Landfill (Rhea County); Alcoa-Maryville-Blount County Landfill (Blount County); Volunteer Regional Landfill (Scott County); Chestnut Ridge Landfill (Anderson County); West Camden Sanitary Landfill (Benton County); Iris Glen Environmental Center (Washington County); Bradley County Landfill (Bradley County); Northwest Tennessee Landfill (Obion County); Waste Service of Decatur, LLC-Decatur County Landfill (Decatur County); City of Chattanooga Birchwood Landfill (Hamilton County); Jackson Madison County Landfill (Madison County); McMinn County Landfill (McMinn County); and Marion County Landfill (Marion County).

- (D)** Identification of any opinions of the attorney general and reporter or any judicial ruling that directly relates to the rule or the necessity to promulgate the rule;

The Board is not aware of any opinions of the Attorney General and Reporter or any judicial ruling that directly relates to the rule or the necessity to promulgate the rule.

- (E)** An estimate of the probable increase or decrease in state and local government revenues and expenditures, if any, resulting from the promulgation of this rule, and assumptions and reasoning upon which the estimate is based. An agency shall not state that the fiscal impact is minimal if the fiscal impact is more than two

percent (2%) of the agency's annual budget or five hundred thousand dollars (\$500,000), whichever is less;

The Board anticipates that this rule will not result in an increase in expenditures or a decrease in revenues for state or local governments.

- (F) Identification of the appropriate agency representative or representatives, possessing substantial knowledge and understanding of the rule;

Jimmy Johnston  
Division of Air Pollution Control  
William R. Snodgrass Tennessee Tower  
312 Rosa L. Parks Avenue, 15th Floor  
Nashville, Tennessee 37243  
[James.Johnston@tn.gov](mailto:James.Johnston@tn.gov)

- (G) Identification of the appropriate agency representative or representatives who will explain the rule at a scheduled meeting of the committees;

Blair Beaty  
Legislative Director  
Office of General Counsel

- (H) Office address, telephone number, and email address of the agency representative or representatives who will explain the rule at a scheduled meeting of the committees; and

Office of General Counsel  
Tennessee Department of Environment and Conservation  
William R. Snodgrass Tennessee Tower  
312 Rosa L. Parks Avenue, 2nd Floor  
Nashville, Tennessee 37243  
(615) 253-5339  
[Blair.Beaty@tn.gov](mailto:Blair.Beaty@tn.gov)

- (I) Any additional information relevant to the rule proposed for continuation that the committee requests.

- (1) A description of the action proposed, the purpose of the action, the legal authority for the action and the plan for implementing the action.
- This rulemaking establishes a state plan for compliance requirements for municipal solid waste landfills constructed, modified, or reconstructed on or before July 17, 2014. This rule was adopted in response to 40 C.F.R. Part 60, Subpart Cf, which requires states to establish such plans. This rule is adopted pursuant to T.C.A. §§ 4-5-201 to -231 and 68-201-101 to -121.
- (2) A determination that the action is the least-cost method for achieving the stated purpose.
- This action is the least-costly method for achieving the intent and purpose of the regulation because it complies with the requirements established by 40 C.F.R. Part 60 Subpart Cf without imposing additional costs. Furthermore, by adopting the provisions of 40 C.F.R. Part 62 Subpart OOO, this rule removes certain redundancies in notification and reporting that would otherwise apply.
- (3) A comparison of the cost-benefit relation of the action to nonaction.
- The Board has determined that there is no cost-benefit relation of this rulemaking action compared to nonaction, because if no action is taken on this rule, affected landfills will still be required to comply with 40 C.F.R. Part 62 Subpart OOO. The difference in action and nonaction at the state level is that the rule would be implemented and enforced directly by U. S. EPA if this rule is not adopted at the state level.
- (4) A determination that the action represents the most efficient allocation of public and private resources.
- The Board has determined that this rule represents the most efficient allocation of public and private resources because implementation and enforcement at the state level is likely to be more efficient than

implementation by U. S. EPA. Similarly, the Board believes that regulated entities will allocate their own resources more efficiently by dealing with the Division of Air Pollution Control rather than with U. S. EPA.

- (5) A determination of the effect of the action on competition.

The Board has determined that this rule will have no effect on competition, because all landfills will be subject to the same requirements. As noted above, these requirements would be implemented and enforced directly by U. S. EPA if this rule is not adopted at the state level.

- (6) A determination of the effect of the action on the cost of living in the geographical area in which the action would occur.

The Board has determined that this rule will not affect the cost of living in the geographical area in which the action would occur.

- (7) A determination of the effect of the action on employment in the geographical area in which the action would occur.

The Board has determined that this rule will not affect employment in the geographical area in which the action would occur.

- (8) The source of revenue to be used for the action.

The action would be funded primarily through Title V fees.

- (9) A conclusion as to the economic impact upon all persons substantially affected by the action, including an analysis containing a description as to which persons will bear the costs of the action and which persons will benefit directly and indirectly from the action.

The Board has determined that this rule will not have a substantial economic impact upon the persons substantially affected by this action. The costs associated with this rule will be borne by municipal solid waste landfills constructed, modified, or reconstructed on or before July 17, 2014. EPA (see 81 FR 59313, Aug. 29, 2016) estimates that surrounding communities will significantly benefit from reduction in emissions of nonmethane organic carbon and methane emissions from landfills.